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HellermannTyton

Certified cable management -  
from rolling stock to infrastructure

MADE FOR REAL 



## Your partner with over 80 years' experience in cable management solutions for the rail industry

There is hardly any other industrial sector that puts such high demands on components and solutions as modern rail vehicle construction. The highest quality, maximum service life and compliance with the strictest safety criteria are absolute requirements.

More than 75,000 products, many years of **industry know-how** and a high degree of **development competence** make HellermannTyton one of the leading companies for sophisticated solutions in bundling, fastening, identifying, protecting and processing cables and wires in rail vehicle construction.

We're at home in 38 countries and speak your language.





## Global expertise: Find your local contact here

If you have any questions on specific solutions or would just like to receive more information, we are happy to help – with all our experience and with technical know-how.

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## Reliability and safety in rail vehicles

**EN 45545-2**

The classification system defined in EN 45545-2 specifies requirements for the fire behaviour of materials and products used in rolling stock.

The thresholds for oxygen index, smoke density and toxicity are outlined in the requirement sets R22, R23 and R24.

HL3 – the most stringent of three Hazard Levels – indicates where material behaviour gives rail passengers the greatest chance of orientating themselves and not suffocating from toxic fumes in the event of fire.

To meet HL3, the oxygen index of a tested material must be above 32 percent, smoke density 300DS or lower and toxicity index of smoke below 0.75 CIT NLP.

| CATEGORIES | Test method                      | Parameter and unit      | Max or Min | Level |     |      |
|------------|----------------------------------|-------------------------|------------|-------|-----|------|
|            |                                  |                         |            | HL1   | HL2 | HL3  |
| R22        | EN ISO 4589-2                    | Oxygen index %          | Min        | 28    | 28  | 32   |
|            | ISO 5659-2: 25 kW/m <sup>2</sup> | Ds max. (smoke opacity) | Max        | 600   | 300 | 150  |
|            | NF X 70-100-1 & -2, 600 °C       | CIT (toxicity)          | Max        | 1.2   | 0.9 | 0.75 |
| R23        | EN ISO 4589-2                    | Oxygen index %          | Min        | 28    | 28  | 32   |
|            | ISO 5659-2: 25 kW/m <sup>2</sup> | Ds max. (smoke opacity) | Max        | -     | 600 | 300  |
|            | NF X 70-100-1 & -2, 600 °C       | CIT (toxicity)          | Max        | -     | 1.8 | 1.5  |
| R24        | EN ISO 4589-2                    | Oxygen index %          | Min        | 28    | 28  | 32   |



## Our tailor-made cable tie solutions for the special needs of the railway industry – certified according to EN 45545-2 and International Railway Industry Standard (IRIS)



In the rail industry, stringent safety legislation is decisive in terms of marketability. International certification is key in this regard. The IRIS (International Railway Industry Standard) is already firmly enshrined in HellermannTyton's procurement guidelines. As a long-standing manufacturer for the rail industry, we meet all requirements in this area and tailor our services to the needs of railway suppliers. In particular, the harmonious interplay between project management, configuration management and obsolescence management boosts the safety and efficiency of your operations.

As one of the world's leading manufacturers of products for fastening, fixing, installing, connecting, insulating, protecting and identifying electrical cables and data network infrastructure, HellermannTyton offers a wide range of fixing solutions for the railway business. Not only do we offer different raw materials. We also offer different designs that serve the special needs of the railway market.

### Available products and designs:

- T-Series cable ties available in a wide range of sizes made of Polyamide 6.6 weather resistant and Polyamide 6.6 V0 (PA66W+PA66V0)
- KR-Series cable ties with its unique locking system. Very secure and vibration resistant fixing solution made of Polyamide 6.6 and Polyamide 6.6 weather resistant (PA66 NA+PA66W)
- OS-Series cable ties with smooth surface to the bundle made of Polyamide 6.6 weather resistant (PA66W) and Polyamide V0 (PA66V0) for low smoke emission or limited fire hazard
- Other series and materials like PA46, PA66HS, Tefzel® and PEEK and others available upon request



**Are you looking for the right solution? We have it – quickly, easily and individually. Our product range.**

**Intensive analyses of the market and the competition** make it possible for us to recognise processing and market trends at an early stage. The current result: more than 75000 items you can choose from today. As an IRIS development partner, HellermannTyton also offers you bespoke solutions specifically for your needs in rail vehicle construction.

**Our team of experts is happy to help out at any time.**

## Customer-specific product development

HellermannTyton is on the spot whenever new solutions are required. We develop products tailored to your specifications. To do this we rely on state-of-the-art CAD and rapid prototyping systems. Through the use of advanced development tools, our experienced designers guarantee a high level of quality in all our products. The result: innovative solutions and the chance for you to benefit from these advantages.



- Save development time
- Reduce weight
- Reduce component diversity
- Choose the right material



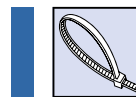
## Our products for rolling stock

We have a solution for all parts of rail vehicles. The toughest requirements are on the bogeys, on the roof and underbody. Vibration resistance is key. We conduct vibration tests on our products to make sure that they conform to the requirements (CEI 61373(1999 cat 2). We have been supplying products to the railway sector since the 1950's. We have a long experience in fastening, protecting and identify cables with plastic or metal solutions.

We are conscious of the high standards that the railway industry needs to achieve. With a strong emphasis on quality, we can help you find the product or service need.

HellermannTyton has been serving leading rolling stock players for a long time. Our close relationship enable us to work together easily on specific challenges and we regularly develop innovative product solutions.

It is in our genes to create customised solutions for our customers. We adapt to your needs.



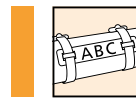
Cable Ties and Fixings  
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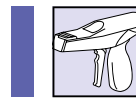
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**1.1 Cable Ties and Fixings**  
Cable ties, inside serrated

**Cable ties for outdoor use (UV resistant)**  
T-Series in PPA/PPSU black

These cable ties are made of Ultrahigh Polyamide 6.6 (PPA) and are suitable for outdoor applications. UV-stabilized cable ties resist UV radiation for a considerably longer period compared to standard black cable ties. They are easy to install for bundling and securing cables, pipes and hoses especially in outdoor sites.

**Features and benefits:**

- UV-resistant black cable ties available in a wide range of sizes
- Made from 100% high quality plastic, known for good recycling
- More resistant for a strong hold over bundles
- Easy application either manually or with a crimping tool
- Simple to break apart (burn out)

**Material specifications please see page 22.**

| TYPE  | Width (mm) | Length (mm) | Bunches (0 min.) | Material | Colour    | Pack Cont. | Tools | APSCA-Ref. |
|-------|------------|-------------|------------------|----------|-----------|------------|-------|------------|
| T100  | 7.5        | 500.0       | 11.2             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T125  | 7.5        | 400.0       | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T150  | 7.5        | 300.0       | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T175  | 7.5        | 200.0       | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T200  | 7.5        | 150.0       | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T250  | 7.5        | 100.0       | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T300  | 7.5        | 75.0        | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T350  | 7.5        | 50.0        | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T400  | 7.5        | 25.0        | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T450  | 7.5        | 15.0        | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T500  | 7.5        | 10.0        | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T550  | 7.5        | 5.0         | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T600  | 7.5        | 2.5         | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T650  | 7.5        | 1.5         | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T700  | 7.5        | 1.0         | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T750  | 7.5        | 0.5         | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T800  | 7.5        | 0.2         | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T850  | 7.5        | 0.1         | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T900  | 7.5        | 0.05        | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T950  | 7.5        | 0.02        | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |
| T1000 | 7.5        | 0.01        | 15.0             | PPA      | Black 001 | 500 pcs    | HT-10 | 111 01780  |

**Recommended Tools**

| 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| HT-10 | HT-11 | HT-12 | HT-13 | HT-14 | HT-15 | HT-16 | HT-17 | HT-18 | HT-19 | HT-20 | HT-21 | HT-22 |

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### Cable ties for outdoor use (UV-resistant)

#### T-Series in PA66W/UV black

These inside serrated cable ties are made of UV-resistant Polyamide 6.6 (PA66W/UV) and thus suitable for outdoor applications. UV stabilised cable ties resist UV radiation for a considerably longer period compared to standard PA66 cable ties. They can easily be used for bundling and securing cables, pipes and hoses especially in outdoor areas.

#### Features and benefits

- UV-resistant black cable tie available in a wide range of sizes
- Made from 100 % high quality plastic, allows for good recycling
- Inside serration for a strong hold onto bundles
- Easy application either manually or with a processing tool
- Simple to insert due to bent tail



UV-resistant T-Series cable ties (PA66W/UV).

|                                  |                                     |
|----------------------------------|-------------------------------------|
| <b>MATERIAL</b>                  | Polyamide 6.6, UV-resistant (PA66W) |
| <b>Operating Temperature</b>     | -40 °C to +85 °C                    |
| <b>Flammability</b>              | UL 94 V2                            |
| <b>EN 45545-2 Classification</b> | R22 HL2, R23 HL2                    |



T-Series



| TYPE     | Width (W) | Length (L) | Bundle Ø max. | N   | Material | Colour     | Pack Cont. | Tools              | Article-No. |
|----------|-----------|------------|---------------|-----|----------|------------|------------|--------------------|-------------|
| T18R     | 2.5       | 101.6      | 22.0          | 80  | PA66W    | Black (BK) | 100 pcs.   | 2;5-6;25           | 111-01692   |
| T18I     | 2.5       | 139.7      | 35.0          | 80  | PA66W    | Black (BK) | 100 pcs.   | 2;5-6;25           | 111-01972   |
| T18L     | 2.5       | 203.2      | 55.0          | 80  | PA66W    | Black (BK) | 100 pcs.   | 2;5-6;25           | 111-01973   |
| T30R     | 3.5       | 150.0      | 35.0          | 135 | PA66W    | Black (BK) | 100 pcs.   | 2;5-6;25           | 111-01974   |
| T30L     | 3.5       | 198.0      | 50.0          | 135 | PA66W    | Black (BK) | 100 pcs.   | 2;5-6;25           | 111-01962   |
| T30LL    | 3.5       | 290.0      | 80.0          | 135 | PA66W    | Black (BK) | 100 pcs.   | 2;5-6;25           | 111-01963   |
| T50R     | 4.6       | 200.0      | 50.0          | 225 | PA66W    | Black (BK) | 100 pcs.   | 2-3;5-6;8;10;25    | 111-01964   |
| T50I     | 4.6       | 300.0      | 85.0          | 225 | PA66W    | Black (BK) | 100 pcs.   | 2-3;5-6;8;10;25    | 111-01975   |
| T50L     | 4.6       | 390.0      | 110.0         | 225 | PA66W    | Black (BK) | 100 pcs.   | 2-3;5-6;8;10;25    | 111-01965   |
| T80R     | 4.7       | 210.0      | 55.0          | 355 | PA66W    | Black (BK) | 100 pcs.   | 2-3;5-6;8;10-12;25 | 111-01695   |
| T80I     | 4.7       | 305.0      | 85.0          | 355 | PA66W    | Black (BK) | 100 pcs.   | 2-3;5-6;8;10-12;25 | 111-01694   |
| T80L     | 4.7       | 390.0      | 110.0         | 355 | PA66W    | Black (BK) | 100 pcs.   | 2-3;5-6;8;10-12;25 | 111-01693   |
| T120I    | 7.6       | 301.6      | 80.0          | 535 | PA66W    | Black (BK) | 100 pcs.   | 3;10-12;25         | 111-01968   |
| T150R    | 7.6       | 365.0      | 100.0         | 670 | PA66W    | Black (BK) | 100 pcs.   | 3;6;10-12;25       | 111-01696   |
| T120R(E) | 7.6       | 387.0      | 100.0         | 535 | PA66W    | Black (BK) | 100 pcs.   | 3;6;10-12;25       | 111-01966   |
| T120M    | 7.6       | 460.0      | 125.0         | 535 | PA66W    | Black (BK) | 100 pcs.   | 3;6;10-12;25       | 111-01967   |
| T120L    | 7.6       | 760.0      | 225.0         | 535 | PA66W    | Black (BK) | 50 pcs.    | 3;6;10-12;25       | 111-01701   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

| Recommended Tools |      |          |      |      |      |        |      |        |
|-------------------|------|----------|------|------|------|--------|------|--------|
| 2                 | 3    | 5        | 6    | 8    | 10   | 11     | 12   | 25     |
| MK20              | MK21 | MK3PNSP2 | EVO7 | MK7P | EVO9 | EVO9HT | MK9P | EVOcut |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

EN 45545-2



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# Cable Ties and Fixings

Cable ties, inside serrated

Rolling stock

## Cable ties for higher fire-protection

### T-Series in PA66V0 white

T-Series cable ties for bundling and securing cables, pipes and hoses. These cable ties can be used for almost any type of application especially where safety regulations are high and the reduction of smoke and dangerous gases is required. PA66V0 products are most critically used within public sector areas – particularly in the rail, construction and defence industry.

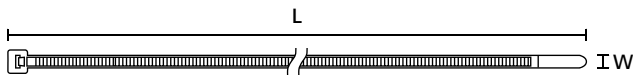
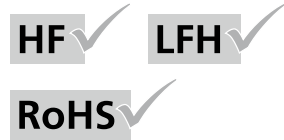
#### Features and benefits

- White cable tie for higher fire-protection
- Conform to low smoke generation requirements (UL94 V0)
- Low evolution of toxic gases and corrosive acids in event of a fire
- PA66V0 cable ties are available in different sizes
- High safety rating due to low fire hazard



White T-Series cable ties for higher fire protection (PA66V0).

|                                  |                                    |
|----------------------------------|------------------------------------|
| <b>MATERIAL</b>                  | Polyamide 6.6 V0 (PA66V0)          |
| <b>Operating Temperature</b>     | -40 °C to +85 °C, (+105 °C, 500 h) |
| <b>Flammability</b>              | UL 94 V0                           |
| <b>EN 45545-2 Classification</b> | R22 HL2, R23 HL3                   |



T-Series

| TYPE     | Width (W) | Length (L) | Bundle Ø max. | N   | Material | Colour     | Pack Cont. | Tools           | Article-No. |
|----------|-----------|------------|---------------|-----|----------|------------|------------|-----------------|-------------|
| T18R     | 2.5       | 100.0      | 22.0          | 80  | PA66V0   | White (WH) | 100 pcs.   | 2;5-6;25        | 111-91819   |
| T18L     | 2.5       | 205.0      | 55.0          | 80  | PA66V0   | White (WH) | 100 pcs.   | 2;5-6;25        | 111-01557   |
| T30R     | 3.6       | 150.0      | 35.0          | 135 | PA66V0   | White (WH) | 100 pcs.   | 2;5-6;25        | 111-93019   |
| T50R     | 4.6       | 200.0      | 50.0          | 225 | PA66V0   | White (WH) | 100 pcs.   | 2-3;5-6;8;10;25 | 111-95019   |
| T50I     | 4.6       | 300.0      | 85.0          | 225 | PA66V0   | White (WH) | 100 pcs.   | 2-3;5-6;8;10;25 | 111-00317   |
| T50L     | 4.7       | 390.0      | 110.0         | 225 | PA66V0   | White (WH) | 100 pcs.   | 2-3;5-6;8;10;25 | 111-05438   |
| T120R(E) | 7.6       | 387.0      | 100.0         | 535 | PA66V0   | White (WH) | 100 pcs.   | 3;6;10-12;25    | 111-91210   |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

#### Recommended Tools

|      |      |          |      |      |      |        |      |        |
|------|------|----------|------|------|------|--------|------|--------|
| 2    | 3    | 5        | 6    | 8    | 10   | 11     | 12   | 25     |
| MK20 | MK21 | MK3PNSP2 | EVO7 | MK7P | EVO9 | EVO9HT | MK9P | EVOcut |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

EN 45545-2



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## Cable ties for thin-walled bundles

### OS-Series

OS-Series cable ties are used in many areas where thin-walled or soft insulation wires and cable are being installed. Despite the railway industry these cable ties are used in the automotive and aircraft industry. OS ties made from material PA66V0 are suitable for applications where safety regulations, e. g. reduction of smoke and dangerous gases, are required.

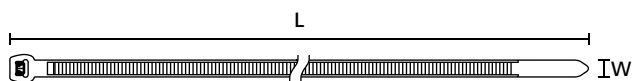
#### Features and benefits

- Outside serrated cable tie with smooth surface to the bundle
- Tie follows the contours of the cable bundle perfectly
- Takes up less space due to curved head
- Easy insertion and high tensile strength
- For limited fire hazard demand: Material PA66V0
- Easy application either manually or with a processing tool



Cable Tie T120ROS.

|                                  |  |
|----------------------------------|--|
| <b>MATERIAL</b>                  | Polyamide 6.6 V0 (PA66V0)  |
| <b>Operating Temperature</b>     | -40 °C to +85 °C, (+105 °C, 500 h)   |
| <b>Flammability</b>              | low generation of toxic gases and corrosive acid, low smoke generation, UL 94 V0 |
| <b>EN 45545-2 Classification</b> | R22 HL2, R23 HL3   |



OS-Series



The curved head design of the OS-Series

| TYPE    | Width (W) | Length (L) | Bundle Ø max. | N   | Material | Colour     | Pack Cont. | Tools        | Article-No. |
|---------|-----------|------------|---------------|-----|----------|------------|------------|--------------|-------------|
| T18ROS  | 2.5       | 100.0      | 20.0          | 80  | PA66V0   | White (WH) | 100 pcs.   | 2;5-6;25     | 118-00079   |
| T30LOS  | 3.4       | 200.0      | 50.0          | 135 | PA66V0   | White (WH) | 100 pcs.   | 2;5-6        | 118-00080   |
| T50ROS  | 4.6       | 200.0      | 50.0          | 225 | PA66V0   | White (WH) | 100 pcs.   | 2;5-6;8;25   | 118-00065   |
| T50MOS  | 4.6       | 245.0      | 66.0          | 225 | PA66V0   | White (WH) | 100 pcs.   | 2;5-6;8      | 118-00081   |
| T120ROS | 7.6       | 385.0      | 105.0         | 535 | PA66V0   | White (WH) | 100 pcs.   | 3;6;10-12;25 | 118-00082   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

| Recommended Tools |      |          |      |      |      |        |      |        |
|-------------------|------|----------|------|------|------|--------|------|--------|
| 2                 | 3    | 5        | 6    | 8    | 10   | 11     | 12   | 25     |
| MK20              | MK21 | MK3PNSP2 | EVO7 | MK7P | EVO9 | EVO9HT | MK9P | EVOcut |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

**EN 45545-2**

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# Cable Ties and Fixings

## Cable ties, outside serrated

Rolling stock

### Cable ties for thin-walled bundles

#### OS-Series

OS-Series cable ties are used in many areas where thin-walled or soft insulation wires and cable are being installed. Despite the railway industry these cable ties are used in the automotive and aircraft industry. OS ties made from material PA66W are suitable for indoor and outdoor applications.

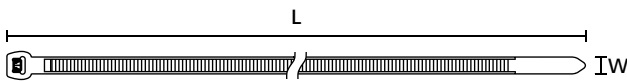
#### Features and benefits

- Outside serrated cable tie with smooth surface to the bundle
- Tie follows the contours of the cable bundle perfectly
- Takes up less space due to curved head design
- Easy insertion combined with high tensile strength
- PA66W material is perfectly suited for outdoor applications
- Easy application either manually or with a processing tool



Outside serrated OS-Series cable tie with smooth surface to the bundle.

|                                  |                                     |
|----------------------------------|-------------------------------------|
| <b>MATERIAL</b>                  | Polyamide 6.6, UV-resistant (PA66W) |
| <b>Operating Temperature</b>     | -40 °C to +85 °C                    |
| <b>Flammability</b>              | UL 94 V2                            |
| <b>EN 45545-2 Classification</b> | R22 HL2, R23 HL2                    |



OS-Series



The curved head design of the OS-Series

| TYPE    | Width (W) | Length (L) | Bundle Ø max. | N   | Material | Colour     | Pack Cont. | Tools        | Article-No. |
|---------|-----------|------------|---------------|-----|----------|------------|------------|--------------|-------------|
| T18ROS  | 2.5       | 100.0      | 20.0          | 80  | PA66W    | Black (BK) | 100 pcs.   | 2;5-6;25     | 118-00125   |
| T30LOS  | 3.4       | 200.0      | 50.0          | 135 | PA66W    | Black (BK) | 100 pcs.   | 2;5-6        | 118-00126   |
| T50ROS  | 4.6       | 200.0      | 50.0          | 225 | PA66W    | Black (BK) | 100 pcs.   | 2;5-6;8;25   | 118-00127   |
| T50MOS  | 4.6       | 245.0      | 66.0          | 225 | PA66W    | Black (BK) | 100 pcs.   | 2;5-6;8      | 118-00128   |
| T50LOS  | 4.6       | 384.0      | 110.0         | 225 | PA66W    | Black (BK) | 100 pcs.   | 2;5-6;8      | 118-00129   |
| T120ROS | 7.6       | 385.0      | 105.0         | 535 | PA66W    | Black (BK) | 100 pcs.   | 3;6;10-12;25 | 118-00130   |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

#### Recommended Tools

|      |      |          |      |      |      |        |      |        |
|------|------|----------|------|------|------|--------|------|--------|
| 2    | 3    | 5        | 6    | 8    | 10   | 11     | 12   | 25     |
| MK20 | MK21 | MK3PNSP2 | EVO7 | MK7P | EVO9 | EVO9HT | MK9P | EVOcut |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

**EN 45545-2**

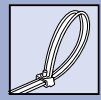
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### Cable tie locked by glass fibre pin

#### KR-Series

This cable tie is distinguished by its smooth strap and unique locking mechanism. The chamfered head of the KR-Series allows for a firm fit around the bundled element. Due to its special design KR-Series cable ties can be used as a safety method to bundle any cable and to also secure bellows on steering racks, water hoses or vacuum lines. The endless strap version is fairly flexible and can be cut to any length required. Separate heads are available to fix the strap.

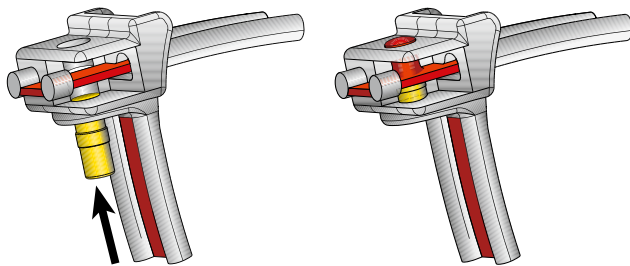
#### Features and benefits

- Unique cable tie system
- Cable tie without serration to avoid any damage to cables
- Strap is locked into place with a glass-fibre reinforced pin
- Very secure and vibration resistant fixing
- KR-ties up to 426 mm are made as one piece
- For assembly a special KR-tool is needed



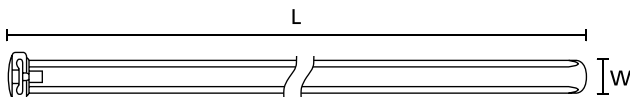
The KR-Series has been repeatedly proven in high vibration applications.

|                                  |                                     |
|----------------------------------|-------------------------------------|
| <b>MATERIAL</b>                  | Polyamide 6.6, UV-resistant (PA66W) |
| <b>Operating Temperature</b>     | -40 °C to +85 °C                    |
| <b>Flammability</b>              | UL 94 V2                            |
| <b>EN 45545-2 Classification</b> | R22 HL2, R23 HL2                    |

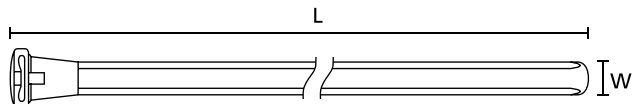


The unlocked head (yellow) of a KR-tie.

The cable tie (red) is locked into place with the pin.



Cable tie KR-Series



Cable tie KR-Series, ultrasonic welded

| TYPE          | Width (W) | Length (L) | Bundle Ø max. | N   | Material | Colour     | Pack Cont. | Tools | Article-No. |
|---------------|-----------|------------|---------------|-----|----------|------------|------------|-------|-------------|
| <b>KR6/35</b> | 6.1       | 360.0      | 93.0          | 490 | PA66W    | Black (BK) | 50 pcs.    | 13    | 121-63580   |
| <b>KR8/21</b> | 8.0       | 210.0      | 47.0          | 785 | PA66W    | Black (BK) | 50 pcs.    | 13-14 | 121-82180   |
| <b>KR8/33</b> | 8.0       | 337.0      | 86.0          | 785 | PA66W    | Black (BK) | 50 pcs.    | 13-14 | 121-83310   |
|               | 8.0       | 337.0      | 86.0          | 785 | PA66UV   | Black (BK) | 50 pcs.    | 13-14 | 121-83360   |
| <b>KR8/43</b> | 8.0       | 426.0      | 105.0         | 785 | PA66W    | Black (BK) | 50 pcs.    | 13-14 | 121-84310   |
| <b>KR8/70</b> | 8.0       | 700.0      | 216.0         | 785 | PA66W    | Black (BK) | 50 pcs.    | 13-14 | 121-07060   |
| <b>KR8/C5</b> | 11.7      | 38.0       | -             | -   | PA66W    | Black (BK) | 200 pcs.   | 13-14 | 121-58570   |

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

| Recommended Tools |         |
|-------------------|---------|
| 13                | 14      |
| KR6/8             | KR8PNSE |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

**EN 45545-2**



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# Cable Ties and Fixings

Fixing products for holes

Rolling stock

## 2-Piece Fixing Ties with Fir Tree, with Disc, for Round Holes

### Fir Tree Parts FT8

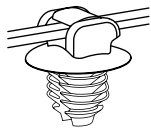
Primarily designed for fixing cable harnesses in the automotive industry their simplicity, and ease of use, has seen these parts used in everything from aircraft, to switch-gear, to washing machines.

#### Features and benefits

- Pre-assembled 2-piece fixing tie with fir tree foot part
- Cable tie head can be moved after bundling
- Easy to assemble without the need for a tool
- Disc adjusts tie for pressure from various directions and minimises access of dust and dirt
- Fir tree foot part can be used for a variety of panel thicknesses
- Suitable for use within threaded holes



These fir tree fixings can also be used in threaded, blind holes.



T50RFT8GSD

|   |  |
|---|--|
| <b>MATERIAL</b>                           | Polyamide 6.6, heat stabilised (PA66HS), Polyamide 6.6, UV-resistant (PA66W) |
| <b>EN 45545-2 Classification Footpart</b> | R22 HL2, R23 HL2   |



| TYPE         | Hole Ø (FH) | Panel Thickness | Width (W) | Length (L) | Bundle Ø max. |     | Disc Ø | Material      | Colour     | Tools        | Article-No. |
|--------------|-------------|-----------------|-----------|------------|---------------|-----|--------|---------------|------------|--------------|-------------|
| T50ROSFT8GSD | 8,0 - 8,5   | 1.1 - 1.5       | 4.6       | 200.0      | 45.0          | 225 | 16     | PA66HS, PA66W | Black (BK) | 2-3;5-6;8;10 | 156-01484   |

All dimensions in mm. Subject to technical changes.

| Recommended Tools |      |          |      |      |      |
|-------------------|------|----------|------|------|------|
| 2                 | 3    | 5        | 6    | 8    | 10   |
| MK20              | MK21 | MK3PNSP2 | EVO7 | MK7P | EVO9 |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.





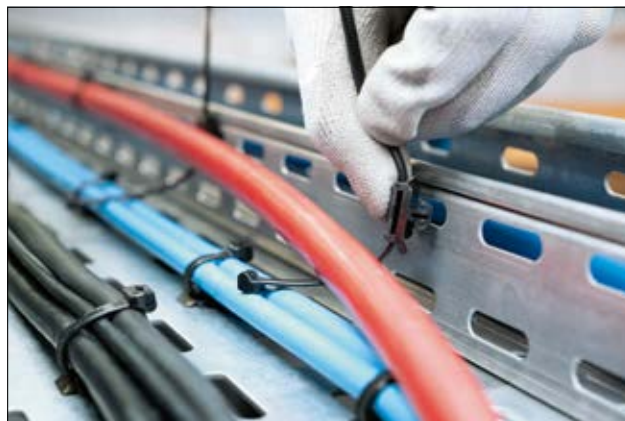
## 2-Piece Fixing Ties with Arrowhead, with Disc

### 2-Piece Fixing Ties with Arrowhead, with Disc for Oval Holes

Primarily designed for fixing cable harnesses in the automotive industry, their simplicity and ease of use has resulted in these parts being used in other industries, for example aviation, switch gear manufacturer, white goods manufacturer.

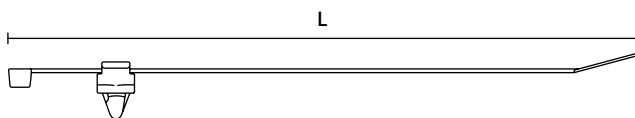
#### Features and benefits

- Pre-assembled 2-piece fixing tie with arrowhead foot part
- Cable tie head can be moved after bundling
- Easy to assemble without the need for a tool
- Arrowhead simply locks into place
- Versions for oval holes feature anti-twist protection



Our 2-Piece Fixing Tie T50RSFT725 ist specially designed for railway application with an fixing hole of 7 x 25 mm.

|   |  |
|---|--|
| <b>MATERIAL</b>                           | Polyamide 6.6, heat stabilised (PA66HS), Polyamide 6.6, UV-resistant (PA66W) |
| <b>Operating Temperature</b>              | -40 °C to +85 °C, (+105 °C, 500 h)   |
| <b>EN 45545-2 Classification Footpart</b> | R22 HL2, R23 HL2   |



T50RFT6

| TYPE                                | Drawing | Hole Ø (FH) | Panel Thickness | Width (W) | Length (L) | Bundle Ø max. |     | Colour     | Tools    | Article-No. |
|-------------------------------------|---------|-------------|-----------------|-----------|------------|---------------|-----|------------|----------|-------------|
| <b>One Click FERRO-T50ROSSFT725</b> |         | 7,0 x 50,0  | 1.0 - 2.0       | 4.6       | 200.0      | 50.0          | 225 | Black (BK) | 5-6;8;10 | 156-01577   |

All dimensions in mm. Subject to technical changes.

| Recommended Tools |      |      |      |
|-------------------|------|------|------|
| 5                 | 6    | 8    | 10   |
| MK3PNSP2          | EVO7 | MK7P | EVO9 |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.



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# Cable Ties and Fixings

Cable ties with fixing elements

Rolling stock

## 2-Piece Fixing Ties with EdgeClip

### EdgeClip 1-3 mm

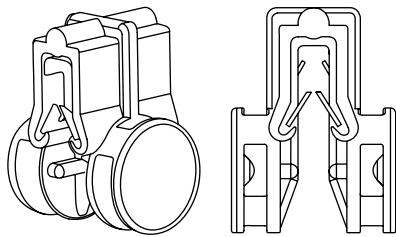
Many applications require cables to be run parallel to each other but separated to avoid abrasion. These cable ties and EdgeClip assemblies are ideal for use where holes are not acceptable or where due to temperature problems adhesives will fail.

#### Features and benefits

- For parallel routing of cables, hoses or harnesses
- Easy assembly, just clip on per hand
- For edges of 1-3 mm
- Integrated metal clamp holds clip firmly in place
- Clamp consists of double tempered steel spring
- Ideal for applications where holes or adhesives are not suitable



T50ROSCBT02SET for parallel bundling.



|   |   |
|---|---|
| <b>MATERIAL</b>                               | Polyamide 6.6, heat stabilised (PA66HS),<br>Polyamide 6.6, UV-resistant (PA66W) |
| <b>Operating Temperature</b>                  | -40 °C to +85 °C  |
| <b>Flammability</b>                           | UL 94 V2  |
| <b>EN 45545-2<br/>Classification Footpart</b> | R22 HL2, R23 HL2  |

RoHS

| TYPE           | Panel Thickness | Width (W) | Length (L) | Bundle Ø max. |     | Cable Tie                               | Foot Part                           | Colour     | Tools | Article-No. |
|----------------|-----------------|-----------|------------|---------------|-----|---|-------------------------------------|------------|-------|-------------|
| T50ROSCBT02SET | 1.0             | 4.6       | 200.0      | 45.0          | 225 | Polyamide 6.6, heat stabilised (PA66HS) | Polyamide 6.6, UV-resistant (PA66W) | Black (BK) | 5-6   | 156-00805   |

All dimensions in mm. Subject to technical changes.

| Recommended Tools |      |
|-------------------|------|
| 5                 | 6    |
| MK3PNSP2          | EVO7 |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.





### 2-Piece Fixing Ties for Heavy Duty Applications, for Screws

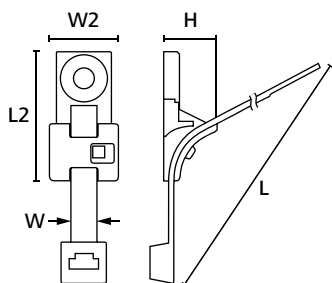
These cable ties and heavy duty mounts (HDM) are used where a robust, secure and durable bundling is requested and eliminates the needs for multiple sized fix diameter clamps.

#### Features and benefits

- Cable tie head can be moved after bundling
- Secure alignment to the bundle due to H-design
- Withstands vibrations and displacement forces
- High tightening torque through metal bushing



These HDM (Heavy duty mount) are suitable for assembling on screws.



HDM with cable tie (L = length of the tie "flat")

#### HDM-Series

| TYPE            | Width (W) | Width (W2) | Length (L) | Length (L2) | Height (H) | Bundle Ø max. | Mounting Screw Type | Material      | Colour     | Article-No. |
|-----------------|-----------|------------|------------|-------------|------------|---------------|---------------------|---------------|------------|-------------|
| T120ROSHDMP6SET | 7.6       | 20.0       | 385.0      | 37.5        | 16.0       | 105.0         | M6                  | PA66HS, PA66W | Black (BK) | 156-00980   |

All dimensions in mm. Subject to technical changes.

| TYPE           | Width (W) | Width (W2) | Length (L) | Length (L2) | Height (H) | Bundle Ø max. | Mounting Screw Type | Material        | Colour     | Article-No. |
|----------------|-----------|------------|------------|-------------|------------|---------------|---------------------|-----------------|------------|-------------|
| KR8/33HDMP6SET | 8.0       | 20.0       | 337.0      | 37.5        | 15.5       | 86.0          | M6                  | PA66W, PA66GF15 | Black (BK) | 156-02483   |

All dimensions in mm. Subject to technical changes.

| TYPE           | Width (W) | Width (W2) | Length (L) | Length (L2) | Height (H) | Bundle Ø max. | Mounting Screw Type | Material        | Colour     | Article-No. |
|----------------|-----------|------------|------------|-------------|------------|---------------|---------------------|-----------------|------------|-------------|
| KR8/33HDMP8SET | 8.0       | 20.0       | 337.0      | 37.5        | 15.5       | 86.0          | M8                  | PA66W, PA66GF15 | Black (BK) | 156-02484   |

All dimensions in mm. Subject to technical changes.

#### DHDM-Series

| TYPE           | Width (W) | Width (W2) | Length (L) | Length (L2) | Height (H) | Bundle Ø max. | Mounting Screw Type | Material        | Colour     | Article-No. |
|----------------|-----------|------------|------------|-------------|------------|---------------|---------------------|-----------------|------------|-------------|
| KR8/33DHDM6SET | 8.0       | 20.0       | 337.0      | 59.4        | 15.5       | 86.0          | M6                  | PA66W, PA66GF15 | Black (BK) | 156-02485   |

All dimensions in mm. Subject to technical changes.

| TYPE           | Width (W) | Width (W2) | Length (L) | Length (L2) | Bundle Ø max. | Mounting Screw Type | Material        | Colour     | Article-No. |
|----------------|-----------|------------|------------|-------------|---------------|---------------------|-----------------|------------|-------------|
| KR8/33DHDM8SET | 8.0       | 20.0       | 337.0      | 59.4        | 86.0          | M8                  | PA66W, PA66GF15 | Black (BK) | 156-02486   |

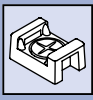
All dimensions in mm. Subject to technical changes.



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# Cable Ties and Fixings

Fixing products for screws

Rolling stock

## Ratchet P-Clamp

For bundle diameters from 6.2 mm up to 51.0 mm

The Ratchet P-Clamp family offers versatility when managing wires, cables and hoses. The robust design and durable materials make it ideal for heavy duty applications, both in- and outdoors. The one-piece adjustable clamp can be closed by hand to the desired diameter. The release feature provides easy and nondestructive removal of cables simply by using a flat-head screwdriver. This nondestructive release allows the clamp to be reused without removing or replacing any bolts or screws. The Ratchet P-Clamp is offered in four sizes and multiple mounting configurations.

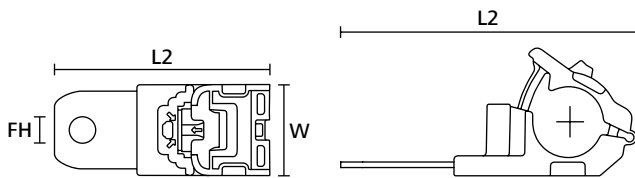
### Features and benefits

- One-piece ratchet closure design allows for easy installation during pre- or final assembly
- Multiple configurations handle a wide range of diameters and applications, reducing part inventory
- Clamp interior is designed to guide and center bundle to reduce pinching
- Easy release feature allows for quick adjustments and maintenance
- Impact modified, heat and UV stabilized PA66 provides long-term durability, in- and outdoors
- Steel mounting plate tolerates high torque mounting and is treated to resist chemicals and salt spray



Ratchet P-Clamp - A more versatile way to mount and clamp cables.

|                                  |  |
|----------------------------------|--|
| <b>MATERIAL</b>                  | Polyamide 6.6 + Polyamide 6 V0 (PA66/6V0), Stainless Steel (SS304) |
| <b>Operating Temperature</b>     | -40 °C to +120 °C  |
| <b>Flammability</b>              | UL 94 V0   |
| <b>EN 45545-2 Classification</b> | R22 HL2, R23 HL3   |



Ratchet P-Clamp (plan view)



[www.HellermannTyton.com/PClamp-rail21](http://www.HellermannTyton.com/PClamp-rail21)

| TYPE        | Drawing | Width (W) | Length (L2) | Bundle Ø min. | Bundle Ø max. | Hole Ø (FH) | Fixing Hole Centres (F) | Variant | Material       | Colour     | Article-No. |
|-------------|---------|-----------|-------------|---------------|---------------|-------------|-------------------------|---------|----------------|------------|-------------|
| RCB180SM6SS |         | 34.9      | 83.1        | 12.7          | 19.5          | 6,6         | 52.8                    | Short   | PA666V0, SS304 | Black (BK) | 151-02736   |
| RCC180SM8SS |         | 34.9      | 103.0       | 19.4          | 36.0          | 8,4         | 62.3                    | Short   | PA666V0, SS304 | Black (BK) | 151-02737   |
| RCD180SM8SS |         | 34.9      | 115.5       | 36.0          | 51.0          | 8,31        | 70.0                    | Short   | PA666V0, SS304 | Black (BK) | 151-02734   |
| RCD180LM8SS |         | 34.9      | 166.5       | 36.0          | 51.0          | 8,31        | 121.0                   | Long    | PA666V0, SS304 | Black (BK) | 151-02735   |

All dimensions in mm. Subject to technical changes.

EN 45545-2

ASTM

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## Paste adhesive mount

### PMB-Series

PMB3 paste mount offers a fixing solution wherever screw fixing is not allowed. Due to the design the mount can even be installed onto uneven surfaces. PMB3 paste mount is used in the railway industry as well as in the renewable energy industry. Further applications are in the electrical industry and the production of switching cabinets. The PMB3 paste adhesive mount is suitable for fixings with paste/liquid adhesive.

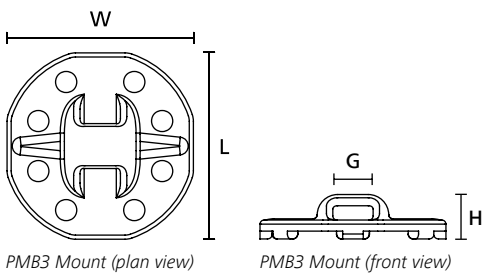
### Features and benefits

- PMB3 paste adhesive mount for fixings with paste / liquid adhesive
- Mount geometry offers a good form closure with cured adhesive
- Can even be installed onto uneven surfaces
- Designed for use in confined spaces
- Made of flame-retardant material PA666V0
- Cost efficiency through reduced use of paste adhesive



PMB3 paste adhesive mount for fixing with paste/liquid adhesive.

|                                  |   |
|----------------------------------|---|
| <b>MATERIAL</b>                  | Polyamide 6.6 + Polyamide 6 V0 (PA66/6V0) |
| <b>Operating Temperature</b>     | -40 °C to +85 °C                          |
| <b>Flammability</b>              | UL 94 V0                                  |
| <b>EN 45545-2 Classification</b> | R22 HL2, R23 HL3                          |



| TYPE | Width (W) | Length (L) | Height (H) | Strap Width max. (G) | Material | Colour     | Article-No. |
|------|-----------|------------|------------|----------------------|----------|------------|-------------|
| PMB3 | 22.6      | 22.6       | 5.4        | 4.7                  | PA666V0  | Black (BK) | 151-02575   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

**EN 45545-2**

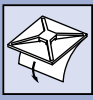
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# Cable Ties and Fixings

Fixing products for self-adhesive fixing

Rolling stock

## Cable tie mounts with high performance adhesive

### FlexTack-Series FMB for round and angled surfaces

FlexTack cable tie mounts can be successfully applied to a variety of high- and low-energy surfaces such as glass, metals (including painted, varnished or powder-coated surfaces) as well as plastics. FlexTack provides a reliable fixing solution where it is impractical to use screws or bolts. The unique design in combination with the special acrylate adhesive makes professional cable management easy.

#### Features and benefits

- Flexible mount for round and angled surfaces
- FMB mounts with homogeneous system of acrylic adhesive
- Allows greater design freedom and offers uniform stress distribution along with weight reduction
- Innovative fixing solution for high and low energy surfaces
- Protection foil with finger lift for easy peel off
- 4-way entry for cable tie for quicker and more flexible installation
- FlexTack cable tie mounts are also suitable for high energy surfaces like metal or glass.

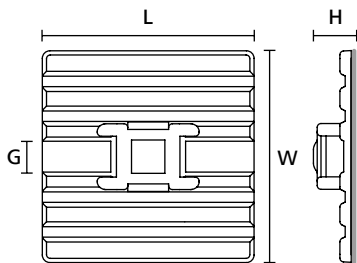


Flexible cable tie mount, FlexTack in use on a concave surface.

|                              |   |
|------------------------------|---|
| <b>MATERIAL</b>              | Polyamide 6.6, heat stabilised (PA66HS) |
| <b>Adhesive</b>              | Acrylate with base of acrylic foam      |
| <b>Operating Temperature</b> | -40 °C to +85 °C                        |
| <b>Flammability</b>          | UL 94 V2 (excluding adhesive)           |

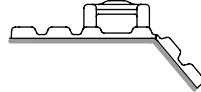


[www.HellermannTyton.com/FlexTack-rail21](http://www.HellermannTyton.com/FlexTack-rail21)

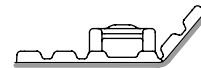


Flexible Adhesive Mount FMB4APT-A (plan view)

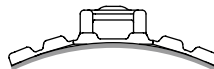
Flexible Adhesive Mount FMB4APT-A (side view)



Flexible Adhesive Mount FMB4APT-A (down angled, side view)



Flexible Adhesive Mount FMB4APT-A (up angled, side view)



Flexible Adhesive Mount FMB4APT-A (convex, side view)



Flexible Adhesive Mount FMB4APT-A (concave, side view)

| TYPE      | Width (W) | Length (L) | Height (H) | Strap Width max. (G) | Material | Colour     | Adhesive      | Pack Cont. | Article-No. |
|-----------|-----------|------------|------------|----------------------|----------|------------|---------------|------------|-------------|
| FMB4APT-A | 28.0      | 28.0       | 6.3        | 5.4                  | PA66HS   | Black (BK) | mod. Acrylate | 100 pcs.   | 151-02219   |

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



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## Cable tie mounts with high performance adhesive

### SolidTack-Series MB

SolidTack MB Series mounts have a square design and are fairly common in areas like electrical cabinet, railway, aerospace, automotive and agriculture machinery. The premium self-adhesive bonds well on high and low-energy surfaces like plastics, metal, varnish or paint and is suitable for a wide range of applications.

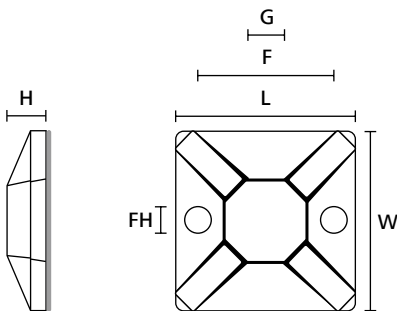
#### Features and benefits

- MB mounts with homogeneous system of acrylic adhesive
- Very good initial adhesion, increases with time
- Innovative fixing solution for high and low energy surfaces
- Protection foil with finger lift for easy peel off



SolidTack MB Series mounts with square design - screwable, self-adhesive - suitable for a wide range of applications like fastening of cables in the automotive machinery.

|                              |                                    |
|------------------------------|------------------------------------|
| <b>MATERIAL</b>              | Polyamide 6.6 (PA66)               |
| <b>Adhesive</b>              | Acrylate with base of acrylic foam |
| <b>Operating Temperature</b> | -40 °C to +85 °C                   |
| <b>Flammability</b>          | UL 94 V2 (excluding adhesive)      |



MB3-MB5 (side view)

MB3-MB5 (plan view)

| TYPE     | Width (W) | Length (L) | Height (H) | Hole Ø (FH) | Fixing Hole Centres (F) | Strap Width max. (G) | Material | Colour     | Adhesive      | Pack Cont. | Article-No. |
|----------|-----------|------------|------------|-------------|-------------------------|----------------------|----------|------------|---------------|------------|-------------|
| MB4APT-A | 28.0      | 28.0       | 4.7        | 4,0         | 20.2                    | 5.6                  | PA66     | Black (BK) | mod. Acrylate | 100 pcs.   | 151-02245   |

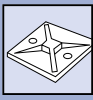
All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



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# Cable Ties and Fixings

## Cable tie mounts

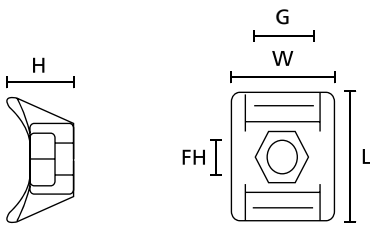
### Screw Fixing Mounts

#### NY with curved design

Designed specifically for holding heavier cable bundles these mounting bases can be used in many industries from agriculture to truck manufacture, they offer a very secure fixing and can be used with a wide variety of heavy duty cable ties up to 13 mm width.

#### Features and benefits

- Curved design for additional cable support
- Simple to install with a screw or bolt
- Excellent security, particularly in areas of high vibration



NY3256 (side view) NY3256 (plan view)



Cable Tie Mounts NY Series.

|                                  |                      |
|----------------------------------|----------------------|
| <b>MATERIAL</b>                  | Polyamide 6.6 (PA66) |
| <b>Operating Temperature</b>     | -40 °C to +85 °C     |
| <b>Flammability</b>              | UL 94 V2             |
| <b>EN 45545-2 Classification</b> | R22 HL2, R23 HL2     |



| TYPE   | Width (W) | Length (L) | Height (H) | Hole Ø (FH) | Strap Width max. (G) | Material | Colour       | Pack Cont. | Article-No. |
|--------|-----------|------------|------------|-------------|----------------------|----------|--------------|------------|-------------|
| NY3256 | 12.0      | 13.5       | 7.8        | 3.1         | 8.0                  | PA66     | Natural (NA) | 1,000 pcs. | 151-25219   |

All dimensions in mm. Subject to technical changes.

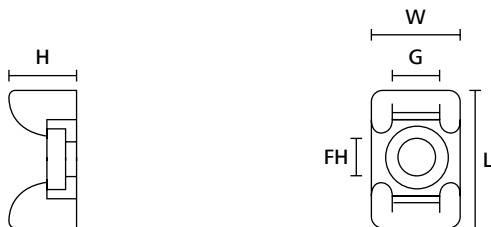
### Screw fixing mounts

#### Cable tie mounts with curved design

Designed specifically for holding heavier cable bundles these mounting bases can be used in many industries from agriculture to truck manufacturing. They offer a very secure fixing and can be used with a wide variety of heavy duty cable ties up to 8.3 mm width.

#### Features and benefits

- Curved design for additional cable support
- Simple to install with a screw or bolt
- Excellent security, particularly in areas of high vibration
- Mounts are available in various sizes and materials



KR6G5, KR8G5 and CTM (side view) KR6G5, KR8G5 and CTM (plan view)



Cable Tie Mounts KR6G5, KR8G5 and CTM.

|                                  |                      |
|----------------------------------|----------------------|
| <b>MATERIAL</b>                  | Polyamide 6.6 (PA66) |
| <b>Operating Temperature</b>     | -40 °C to +85 °C     |
| <b>Flammability</b>              | UL 94 V2             |
| <b>EN 45545-2 Classification</b> | R22 HL2, R23 HL2     |



| TYPE  | Width (W) | Length (L) | Height (H) | Hole Ø (FH) | Strap Width max. (G) | Material | Colour       | Pack Cont. | Article-No. |
|-------|-----------|------------|------------|-------------|----------------------|----------|--------------|------------|-------------|
| KR6G5 | 12.0      | 18.0       | 9.0        | 4,5         | 6.0                  | PA66     | Natural (NA) | 100 pcs.   | 151-24619   |
| KR8G5 | 14.5      | 25.0       | 12.0       | 6,5         | 8.0                  | PA66     | Natural (NA) | 100 pcs.   | 151-24819   |

All dimensions in mm. Subject to technical changes.

**EN 45545-2**

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.





## Plastic P-Clamps

### HP-Series

For permanent or semi-permanent cable fixings this range of plastic P-Clamps can be used in many industries. Their light weight makes them particularly suitable for use in areas such as aircraft and aerospace where minimising weight, but retaining a strong fixing, is vitally important.

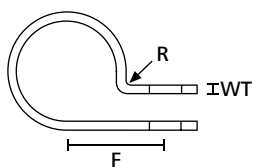
#### Features and benefits

- Manufactured from Polyamide
- Good temperature resistance and high strength
- Wide range of sizes for every application
- Can be used without cable ties

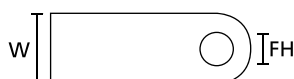


P-Clamps H1P - H18P in different dimensions.

|                                  |                      |
|----------------------------------|----------------------|
| <b>MATERIAL</b>                  | Polyamide 6.6 (PA66) |
| <b>Operating Temperature</b>     | -40 °C to +85 °C     |
| <b>Flammability</b>              | UL 94 V2             |
| <b>EN 45545-2 Classification</b> | R22 HL2, R23 HL2     |



P-Clamp H1P - H18P (side view)



P-Clamp H1P - H18P (plan view)

| TYPE | Hole Ø (FH) | Bundle Ø max. | Fixing Hole Centres (F) | Material | Colour       | Article-No. |
|------|-------------|---------------|-------------------------|----------|--------------|-------------|
| H6P  | 4,2         | 11.0          | 13.0                    | PA66     | Natural (NA) | 211-60069   |

All dimensions in mm. Subject to technical changes.

**EN 45545-2**

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### Arrowhead Cradle

#### SFC

Offering simple and easy methods of securing cables or pipes, these fixing accessories have many applications within a wide range of industries.

#### Features and benefits

- Arrowhead fixing for use in pre-drilled or punched holes
- Ideal for applications with limited space and restricted access
- Parts with disc protect against dirt and dust



The SFC3 series for securely fixing and to route cables and pipes.

|                                  |                                       |
|----------------------------------|---------------------------------------|
| <b>MATERIAL</b>                  | Polyamide 6.6, UV-stabilised (PA66UV) |
| <b>Operating Temperature</b>     | -40 °C to +85 °C, (+105 °C, 500 h)    |
| <b>Flammability</b>              | UL 94 V2                              |
| <b>EN 45545-2 Classification</b> | R22 HL2, R23 HL2                      |



| TYPE   | Drawing | Hole Ø (FH) | Panel Thickness | Strap Width max. (G) | Material | Colour     | Width (W) | Length (L) | Article-No. |
|--------|---------|-------------|-----------------|----------------------|----------|------------|-----------|------------|-------------|
| SFC3-F |         | 6,4         | 2.0 - 3.3       | 6.5                  | PA66UV   | Black (BK) | 12.0      | 16.8       | 151-00340   |

All dimensions in mm. Subject to technical changes.





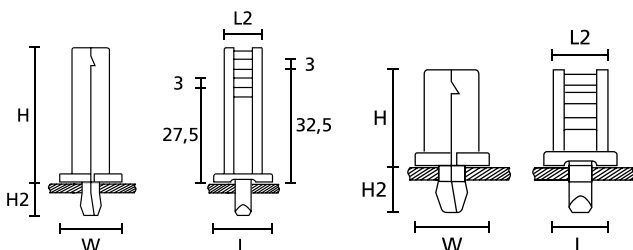
## Rivet mount

### TY5-Series

The TY Fixings are ideal for use where a high pull out force is required (eg. in the aircraft industry). The two piece 'wedge' ensures that once installed the mounts will not come away from the panel. Particularly designed for areas with restricted access.

#### Features and benefits

- Quick installation
- Two-piece wedge
- Easy insertion
- Firmly fixes wide variety of cable ties



TY5K5 Rivet Mount

TY5K1 Rivet Mount



Rivet Mount TY5 is usable with a wide variety of our cable ties.

|                              |   |
|------------------------------|---|
| <b>MATERIAL</b>              | Polyamide 6.6, heat stabilised (PA66HS) |
| <b>Operating Temperature</b> | -40 °C to +105 °C                       |
| <b>Flammability</b>          | UL 94 V2                                |



| TYPE  | Width (W) | Length (L) | Length (L2) | Height (H) | Height (H2) | Hole Ø (FH) | Panel Thickness | Strap Width max. (G) | Material | Colour       | Article-No. |
|-------|-----------|------------|-------------|------------|-------------|-------------|-----------------|----------------------|----------|--------------|-------------|
| TY5K2 | 12.0      | 14.0       | 10.0        | 7.8        | 9.5         | 4,9 - 5,3   | 1.0 - 5.0       | 5.5                  | PA66HS   | Natural (NA) | 152-11209   |

All dimensions in mm. Subject to technical changes.

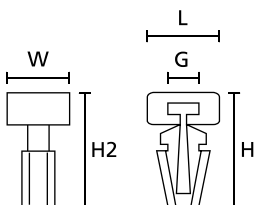
## Cable Fixing Cradle

### TM1SF for cable ties width up to 5.0 mm

Offering simple and easy methods of securing cables or pipes, these fixing accessories have many applications within a wide range of industries.

#### Features and benefits

- Ideal mount for space-saving applications with restricted access
- Arrowhead for very secure fixing



TM1SF Fixing Base



TM1SF for secure fixing of cables into pre-drilled or pre-punched holes.

|                              |                      |
|------------------------------|----------------------|
| <b>MATERIAL</b>              | Polyamide 6.6 (PA66) |
| <b>Operating Temperature</b> | -40 °C to +85 °C     |
| <b>Flammability</b>          | UL 94 V2             |



| TYPE  | Drawing | Hole Ø (FH) | Panel Thickness | Width (W) | Length (L) | Height (H) | Height (H2) | Material | Colour     | Article-No. |
|-------|---------|-------------|-----------------|-----------|------------|------------|-------------|----------|------------|-------------|
| TM1SF |         | 6,35        | 3.3 - 3.4       | 10.2      | 15.8       | 15.6       | 4.6         | PA66     | White (WH) | 151-40119   |

All dimensions in mm. Subject to technical changes.



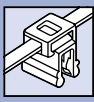
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# Cable Ties and Fixings

Fixing products for edges

Rolling stock

## 2-piece fixing ties for edges

### EdgeClip-Series, 1.0 - 3.0 mm, top fixing

These cable ties and EdgeClip assemblies are ideal for use where holes are not acceptable or where due to temperature problems adhesives will fail. These assemblies are widely used for fixing and bundling cables, pipes and hoses within the automotive industry, harness making, panel building and electrical industry.

#### Features and benefits

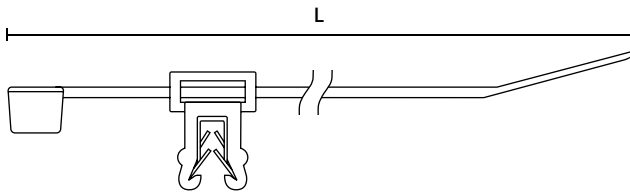
- Pre-assembled 2-piece fixing tie with EdgeClip
- Cable tie head can be moved after bundling
- EC9, EC10, EC21 and EC22 are for minimum bundle diameters of 1 mm
- For edges of 1 - 3 mm



T50ROSEC10 fitted onto a plastic panel to hold a Ø 6 mm harness.



[www.HellermannTyton.com/EdgeClip-rail21](http://www.HellermannTyton.com/EdgeClip-rail21)



Fixing Tie with EC4

|                              |   |
|------------------------------|---|
| <b>MATERIAL</b>              | Polyamide 6.6, heat stabilised (PA66HS), Polyamide 6.6, high impact modified, heat stabilised (PA66HIRHS) |
| <b>Operating Temperature</b> | -40 °C to +105 °C   |
| <b>Flammability</b>          | UL 94 HB  |



| TYPE       | Drawing | Width (W) | Length (L) | Bundle Ø max. | N   | Material          | Colour     | Tools        | Article-No. |
|------------|---------|-----------|------------|---------------|-----|-------------------|------------|--------------|-------------|
| T50ROSEC4A |         | 4.6       | 200.0      | 45.0          | 225 | PA66HS, PA66HIRHS | Black (BK) | 2-3;5-6;8;10 | 150-76099   |
| T50ROSEC4B |         | 4.6       | 200.0      | 45.0          | 225 | PA66HS, PA66HIRHS | Black (BK) | 2-3;5-6;8;10 | 150-76079   |
| T50ROSEC10 |         | 4.6       | 200.0      | 45.0          | 225 | PA66HS, PA66HIRHS | Black (BK) | 2-3;5-6;8;10 | 156-05904   |
| T50ROSEC9  |         | 4.6       | 200.0      | 45.0          | 225 | PA66HS, PA66HIRHS | Black (BK) | 2-3;5-6;8;10 | 156-05903   |

All dimensions in mm. Subject to technical changes.

| Recommended Tools |      |          |      |      |      |
|-------------------|------|----------|------|------|------|
| 2                 | 3    | 5        | 6    | 8    | 10   |
| MK20              | MK21 | MK3PNSP2 | EVO7 | MK7P | EVO9 |

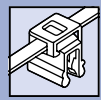
For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.



Add items to your watchlist!

[www.HT.click/12-26](http://www.HT.click/12-26)





## 2-piece fixing ties for edges

### EdgeClip-Series, 1.0 - 3.0 mm, side fixing

These cable ties and EdgeClip assemblies are ideal for use where holes are not acceptable or where due to temperature problems adhesives will fail. These assemblies are widely used for fixing and bundling cables, pipes and hoses within the automotive industry, harness making, panel building and electrical industry.

#### Features and benefits

- Pre-assembled 2-piece fixing tie with EdgeClip
- Cable tie head can be moved after bundling
- EC9, EC10, EC21 and EC22 are for minimum bundle diameters of 1 mm
- For edges of 1 – 3 mm



T50ROSEC23 - the cable bundle runs parallel with the edge.

|                              |   |
|------------------------------|---|
| <b>MATERIAL</b>              | Polyamide 6.6, heat stabilised (PA66HS), Polyamide 6.6, high impact modified, heat stabilised (PA66HIRHS) |
| <b>Operating Temperature</b> | -40 °C to +105 °C   |
| <b>Flammability</b>          | UL 94 HB  |



| TYPE       | Drawing | Width (W) | Length (L) | Bundle Ø max. | N   | Material          | Colour     | Tools        | Article-No. |
|------------|---------|-----------|------------|---------------|-----|-------------------|------------|--------------|-------------|
| T50ROSEC5A |         | 4.6       | 200.0      | 45.0          | 225 | PA66HS, PA66HIRHS | Black (BK) | 2-3;5-6;8;10 | 150-40591   |
| T50ROSEC5B |         | 4.6       | 200.0      | 45.0          | 225 | PA66HS, PA66HIRHS | Black (BK) | 2-3;5-6;8;10 | 150-40581   |
| T50ROSEC21 |         | 4.6       | 200.0      | 45.0          | 225 | PA66HS, PA66HIRHS | Black (BK) | 2-3;5-6;8;10 | 156-00010   |
| T50ROSEC22 |         | 4.6       | 200.0      | 45.0          | 225 | PA66HS, PA66HIRHS | Black (BK) | 2-3;5-6;8;10 | 156-00011   |

All dimensions in mm. Subject to technical changes.

| Recommended Tools |      |          |      |      |      |
|-------------------|------|----------|------|------|------|
| 2                 | 3    | 5        | 6    | 8    | 10   |
| MK20              | MK21 | MK3PNSP2 | EVO7 | MK7P | EVO9 |

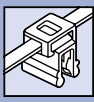
For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.



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# Cable Ties and Fixings

Fixing products for edges

Rolling stock

## 2-piece fixing ties for edges

### EdgeClip-Series, 3.0 - 6.0 mm, top fixing

These cable ties and EdgeClip assemblies are ideal for use where holes are not acceptable or where due to temperature problems adhesives will fail. These assemblies are widely used for fixing and bundling cables, pipes and hoses within the automotive industry, harness making, panel building and electrical industry.

#### Features and benefits

- Pre-assembled 2-piece fixing tie with EdgeClip
- Cable tie head can be moved after bundling
- For minimum bundle diameters of 1 mm
- For edges of 3 – 6 mm



Fixing Tie with EdgeClip for thick edges.

|                              |   |
|------------------------------|---|
| <b>MATERIAL</b>              | Polyamide 6.6, heat stabilised (PA66HS), Polyamide 6.6, high impact modified, heat stabilised (PA66HIRHS) |
| <b>Operating Temperature</b> | -40 °C to +105 °C   |
| <b>Flammability</b>          | UL 94 HB  |



| TYPE       | Drawing | Width (W) | Length (L) | Bundle Ø max. |     | Material          | Colour     | Tools        | Article-No. |
|------------|---------|-----------|------------|---------------|-----|-------------------|------------|--------------|-------------|
| T50ROSEC19 |         | 4.6       | 200.0      | 45.0          | 225 | PA66HS, PA66HIRHS | Black (BK) | 2-3;5-6;8;10 | 156-04602   |
| T50ROSEC20 |         | 4.6       | 200.0      | 45.0          | 225 | PA66HS, PA66HIRHS | Black (BK) | 2-3;5-6;8;10 | 156-00020   |

All dimensions in mm. Subject to technical changes.

| Recommended Tools |      |          |      |      |      |
|-------------------|------|----------|------|------|------|
| 2                 | 3    | 5        | 6    | 8    | 10   |
| MK20              | MK21 | MK3PNSP2 | EVO7 | MK7P | EVO9 |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.



### Heat shrinkable tubing 2:1 - Flame retardant

#### TR27

TR27 is used in applications where toxic emissions evolved in a fire must be minimised, e.g. for heavily populated buildings or safety sensitive areas like tunnels, hospitals, schools, theatres, mass transit vehicles and computer centres.

#### Features and benefits

- Thin wall, flexible polyolefin tubing
- Optional available with adhesive or as thick wall version (SR27)
- Halogen free and excellent flame-retardant properties
- Meets various industrial standards



TR27 is ideal for safety sensitive areas.

|  |   |
|--|---|
| <b>MATERIAL</b>                            | Polyolefin, cross-linked (PO-X)   |
| <b>Shrink Ratio</b>                        | 2:1   |
| <b>Operating Temperature</b>               | -40 °C to +105 °C   |
| <b>Min. Shrink Temperature</b>             | +115 °C   |
| <b>Longitudinal Change After Shrinkage</b> | +5 %/-10 % max.   |
| <b>Dielectric Strength</b>                 | 15 kV/mm  |
| <b>Flammability</b>                        | Limited Fire Hazard, halogen free, low generation of toxic gases and corrosive acid, low smoke generation |
| <b>EN 45545-2 Classification</b>           | R22 HL3, R23 HL3  |



Heat Shrinkable Tubing 2:1



| TYPE           | Supplied Ø D min. | Size (imperial) | Recov. Ø d max. | Wall (WT) | Reel Length | Colour     | Tools | Article-No. |
|----------------|-------------------|-----------------|-----------------|-----------|-------------|------------|-------|-------------|
| TR27-3.2/1.6   | 3.2               | 1/8 "           | 1.6             | 0.51      | 150 m       | Black (BK) | 30;32 | 315-50320   |
| TR27-4.8/2.4   | 4.8               | 3/16 "          | 2.4             | 0.51      | 60 m        | Black (BK) | 30;32 | 315-50480   |
| TR27-6.4/3.2   | 6.4               | 1/4 "           | 3.2             | 0.64      | 60 m        | Black (BK) | 30;32 | 315-50640   |
| TR27-9.5/4.8   | 9.5               | 3/8 "           | 4.8             | 0.64      | 60 m        | Black (BK) | 30;32 | 315-50950   |
| TR27-12.7/6.4  | 12.7              | 1/2 "           | 6.4             | 0.64      | 60 m        | Black (BK) | 30;32 | 315-51270   |
| TR27-19.1/9.5  | 19.1              | 3/4 "           | 9.5             | 0.76      | 60 m        | Black (BK) | 30;32 | 315-51900   |
| TR27-25.4/12.7 | 25.4              | 1 "             | 12.7            | 0.51      | 60 m        | Black (BK) | 30;32 | 315-52540   |
| TR27-38.1/19.1 | 38.1              | 1-1/2 "         | 19.1            | 1.02      | 60 m        | Black (BK) | 30;32 | 315-53810   |
| TR27-50.8/25.4 | 50.8              | 2 "             | 25.4            | 1.14      | 60 m        | Black (BK) | 30;32 | 315-55100   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content.

| Recommended Tools |        |
|-------------------|--------|
| 30                | 32     |
| H6100             | CHG900 |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

**EN 45545-2**

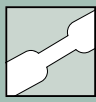
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Add items to your watchlist!

[www.HT.click/12-29](http://www.HT.click/12-29)





### Heat shrinkable tubing 3:1 - Flame retardant

#### TA37 – thin wall adhesive lined

TA37 shrink tubing has a low smoke index and excellent flame retardant properties to meet strict fire security standards in electrical insulation.

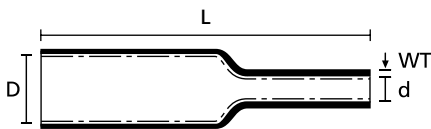
#### Features and benefits

- Thin wall adhesive lined heat shrink tubing
- Halogen free
- Flame retardant
- Combination of these three (halogen free, adhesive lined and flame retardant) product properties is unique

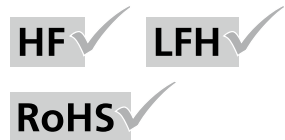


TA37 - Halogenfree and self-extinguishing 3:1 Thin Dual Wall Heat Shrink Tubing.

|  |  |
|--|--|
| <b>MATERIAL</b>                            | Polyolefin, chemically cross-linked (PO-X)   |
| <b>Shrink Ratio</b>                        | 3:1  |
| <b>Operating Temperature</b>               | -40 °C to +105 °C  |
| <b>Min. Shrink Temperature</b>             | +120 °C  |
| <b>Softening Point Adhesive</b>            | +85 °C   |
| <b>Longitudinal Change After Shrinkage</b> | +3 %/-15 %   |
| <b>Dielectric Strength</b>                 | 19.7 kV/mm   |
| <b>Flammability</b>                        | self-extinguishing, low smoke generation, low generation of toxic gases and corrosive acid |
| <b>EN 45545-2 Classification</b>           | R22 HL3, R23 HL3   |



Heat Shrinkable Tubing 3:1 with adhesive



| TYPE         | Supplied Ø D min. | Recov. Ø d max. | Wall (WT) | Length (L) | Colour     | Tools | Article-No. |
|--------------|-------------------|-----------------|-----------|------------|------------|-------|-------------|
| TA37 3-1     | 3.2               | 1.0             | 0.95      | 1.2 m      | Black (BK) | 30    | 315-13000   |
| TA37 4.5-1.5 | 4.8               | 1.5             | 1.10      | 1.2 m      | Black (BK) | 30    | 315-13001   |
| TA37 6-2     | 6.4               | 2.0             | 1.20      | 1.2 m      | Black (BK) | 30    | 315-13002   |
| TA37 9-3     | 9.5               | 3.0             | 1.30      | 1.2 m      | Black (BK) | 30    | 315-13003   |
| TA37 12-4    | 12.7              | 4.0             | 1.40      | 1.2 m      | Black (BK) | 30    | 315-13004   |
| TA37 19-6    | 19.1              | 6.0             | 2.20      | 1.2 m      | Black (BK) | 30    | 315-13005   |
| TA37 24-8    | 24.0              | 8.0             | 2.50      | 1.2 m      | Black (BK) | 30    | 315-13006   |
| TA37 40-13   | 40.0              | 13.0            | 2.50      | 1.2 m      | Black (BK) | 30    | 315-13007   |
| TA37 50-19   | 50.0              | 19.0            | 4.00      | 1.2 m      | Black (BK) | 30    | 315-13008   |
| TA37 75-25   | 75.0              | 25.0            | 3.00      | 1.2 m      | Black (BK) | 30    | 315-13009   |
| TA37 120-45  | 120.0             | 45.0            | 4.00      | 1.2 m      | Black (BK) | 30    | 315-13011   |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

| Recommended Tools |
|-------------------|
| 30<br>H6100       |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

**EN 45545-2**

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.



### Heat shrinkable tubing up to 4:1, self-extinguishing, halogen-free – 1 m lengths

#### HR47 – thick-walled

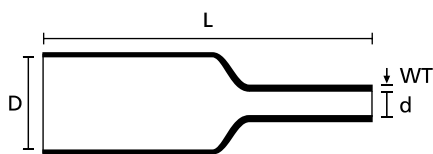
The thick-walled heat shrinkable tubing HR47 is halogen-free, self-extinguishing and has a low smoke index. Therefore the product is extremely suitable for mechanical protection (e.g. anti-kink and abrasion protection) in public transportation applications such as trains, busses, planes, tunnels and elevators.

#### Features and benefits

- Thick-walled, rigid polyolefin heat shrinkable tubing
- Halogen-free
- Self-extinguishing
- Low smoke index
- DIN EN 45545-2 (HL3) approved
- High shrink ratio up to 4:1



The thick-walled HR47 has low smoke and toxic gas emissions.



Heat Shrinkable Tubing 4:1

|  |                                 |
|--|---------------------------------|
| <b>MATERIAL</b>                            | Polyolefin, cross-linked (PO-X) |
| <b>Shrink Ratio</b>                        | up to 4:1                       |
| <b>Operating Temperature</b>               | -55 °C to +110 °C               |
| <b>Min. Shrink Temperature</b>             | +120 °C                         |
| <b>Longitudinal Change After Shrinkage</b> | 10 % max.                       |
| <b>Dielectric Strength</b>                 | 15 kV/mm                        |
| <b>Flammability</b>                        | self-extinguishing              |
| <b>EN 45545-2 Classification</b>           | R22 HL3, R23 HL3                |



| TYPE        | Supplied Ø D min. | Recov. Ø d max. | Wall (WT) | Colour     | Tools | Article-No. |
|-------------|-------------------|-----------------|-----------|------------|-------|-------------|
| HR47-9/3    | 9.00              | 3.00            | 2.00      | Black (BK) | 32    | 321-40000   |
| HR47-13/4   | 13.00             | 4.00            | 2.40      | Black (BK) | 32    | 321-40001   |
| HR47-22/6   | 22.00             | 6.00            | 2.70      | Black (BK) | 32    | 321-40002   |
| HR47-33/8   | 33.00             | 8.00            | 3.20      | Black (BK) | 32    | 321-40003   |
| HR47-40/12  | 40.00             | 12.00           | 4.00      | Black (BK) | 32    | 321-40004   |
| HR47-55/16  | 55.00             | 16.00           | 4.00      | Black (BK) | 32    | 321-40005   |
| HR47-75/22  | 75.00             | 22.0            | 4.00      | Black (BK) | 32    | 321-40006   |
| HR47-85/25  | 85.00             | 25.00           | 4.20      | Black (BK) | 32    | 321-40007   |
| HR47-95/29  | 95.00             | 29.00           | 4.20      | Black (BK) | 32    | 321-40008   |
| HR47-105/30 | 105.0             | 30.0            | 4.20      | Black (BK) | 32    | 321-40009   |
| HR47-115/34 | 115.00            | 34.00           | 4.20      | Black (BK) | 32    | 321-40010   |
| HR47-130/36 | 130.00            | 36.00           | 4.20      | Black (BK) | 32    | 321-40011   |
| HR47-180/50 | 180.0             | 50.0            | 4.20      | Black (BK) | 32    | 321-40012   |

All dimensions in mm. Subject to technical changes.

| Recommended Tools |
|-------------------|
| 32<br>CHG900      |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

## EN 45545-2

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[www.HT.click/12-31](http://www.HT.click/12-31)





### Heat shrinkable tubing 2:1 – self-extinguishing, halogen-free and diesel resistant

#### TU28 - thin-walled

The thin-walled heat shrinkable tubing TU28 is halogen-free, self-extinguishing, has a low smoke index and therefore is extremely suitable for installation in public transportation applications such as trains, busses, planes, tunnels and elevators.

#### Features and benefits

- Thin-walled, flexible polyolefin heat shrinkable tubing
- Halogen-free
- Self-extinguishing
- Low smoke index
- DIN EN 45545-2 (HL3) approved
- Diesel resistant



TU28 meets highest safety standards.



More colours on request.  
Please contact us.



Heat Shrinkable Tubing 2:1

|  |                                 |
|--|---------------------------------|
| <b>MATERIAL</b>                            | Polyolefin, cross-linked (PO-X) |
| <b>Shrink Ratio</b>                        | 2:1                             |
| <b>Operating Temperature</b>               | -55 °C to +125 °C               |
| <b>Min. Shrink Temperature</b>             | +120 °C                         |
| <b>Longitudinal Change After Shrinkage</b> | +/-5 %                          |
| <b>Dielectric Strength</b>                 | 19.7 kV/mm                      |
| <b>Flammability</b>                        | self-extinguishing              |
| <b>EN 45545-2 Classification</b>           | R22 HL3, R23 HL3                |



| TYPE           | Supplied Ø D min. | Recov. Ø d max. | Wall (WT) | Colour     | Tools | Article-No. |
|----------------|-------------------|-----------------|-----------|------------|-------|-------------|
| TU28-2.4/1.2   | 2.59              | 1.20            | 0.49      | Black (BK) | 30    | 300-06001   |
| TU28-3.2/1.6   | 3.64              | 1.59            | 0.51      | Black (BK) | 30    | 300-06002   |
| TU28-4.8/2.4   | 5.26              | 2.36            | 0.54      | Black (BK) | 30    | 300-06003   |
| TU28-6.4/3.2   | 6.92              | 3.18            | 0.56      | Black (BK) | 30    | 300-06004   |
| TU28-9.5/4.8   | 10.2              | 4.75            | 0.59      | Black (BK) | 30    | 300-06005   |
| TU28-12.7/6.4  | 13.5              | 6.35            | 0.60      | Black (BK) | 30    | 300-06006   |
| TU28-19.1/9.5  | 20.1              | 9.53            | 0.62      | Black (BK) | 30    | 300-06007   |
| TU28-25.4/12.7 | 26.7              | 12.70           | 0.63      | Black (BK) | 30    | 300-06008   |
| TU28-38.1/19.1 | 39.8              | 19.10           | 0.64      | Black (BK) | 30    | 300-06009   |
| TU28-50.8/25.4 | 53.0              | 25.40           | 0.64      | Black (BK) | 30    | 300-06010   |

All dimensions in mm. Subject to technical changes.

#### Recommended Tools

30

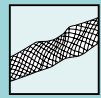
H6100

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

**EN 45545-2**

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### Standard polyester braided sleeving

#### Helagain HEGP

Helagain HEGP braided sleeving is made of polyester provides superior abrasion protection in the rail, automotive and machine building industries.

#### Features and benefits

- Made of sturdy polyester
- Highly flexible
- High abrasion resistance
- Very high surface coverage



Helagain HEGP braided sleeving.

|                                  |                     |
|----------------------------------|---------------------|
| <b>MATERIAL</b>                  | Polyester (PET)     |
| <b>Operating Temperature</b>     | -50 °C to +150 °C   |
| <b>Melting Point</b>             | +250 °C             |
| <b>Flammability</b>              | UL 94 V2, FMVSS 302 |
| <b>EN 45545-2 Classification</b> | R22 HL3, R23 HL3    |

HF ✓

RoHS ✓

| TYPE   | Bundle Ø min. | Bundle Ø max. | Colour     | Reel Length | Tools | Article-No. |
|--------|---------------|---------------|------------|-------------|-------|-------------|
| HEGP03 | 1             | 5             | Black (BK) | 200 m       | 45    | 170-10300   |
| HEGP04 | 2             | 7             | Black (BK) | 200 m       | 45    | 170-10400   |
| HEGP05 | 3             | 9             | Black (BK) | 200 m       | 45    | 170-10500   |
| HEGP06 | 4             | 11            | Black (BK) | 100 m       | 45    | 170-10600   |
| HEGP08 | 5             | 12            | Black (BK) | 100 m       | 45    | 170-10800   |
| HEGP10 | 7             | 15            | Black (BK) | 100 m       | 45    | 170-11000   |
| HEGP12 | 8             | 17            | Black (BK) | 100 m       | 45    | 170-11200   |
| HEGP15 | 10            | 20            | Black (BK) | 100 m       | 45    | 170-11500   |
| HEGP20 | 14            | 26            | Black (BK) | 50 m        | 45    | 170-12000   |
| HEGP25 | 18            | 34            | Black (BK) | 50 m        | 45    | 170-12500   |
| HEGP30 | 20            | 40            | Black (BK) | 50 m        | 45    | 170-13000   |
| HEGP40 | 30            | 50            | Black (BK) | 50 m        | 45    | 170-14000   |
| HEGP50 | 40            | 66            | Black (BK) | 50 m        | 45    | 170-15000   |

All dimensions in mm. Subject to technical changes.  
Colour grey available on request. Cuts in any lengths. Minimum Order Quantity (MOQ) may differ from package content.

#### Recommended Tools

45  
HSG0

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

**EN 45545-2**

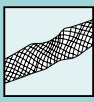
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[www.HT.click/12-33](http://www.HT.click/12-33)





### High-expansion polyester braided sleeving

#### Helagain HEGPX

Helagain HEGPX is used wherever a higher expansion rate is required. It is particularly suitable for use in the rail, automotive and machine building industries.

#### Features and benefits

- Made of sturdy polyester
- Highly flexible
- High rate of expansion
- Easy to apply over irregular shapes
- Good abrasion resistance



HEGPX - Expandable abrasion protection sleeve.

|                                  |                     |
|----------------------------------|---------------------|
| <b>MATERIAL</b>                  | Polyester (PET)     |
| <b>Operating Temperature</b>     | -50 °C to +150 °C   |
| <b>Melting Point</b>             | +250 °C             |
| <b>Flammability</b>              | UL 94 V2, FMVSS 302 |
| <b>EN 45545-2 Classification</b> | R22 HL2, R23 HL2    |



| TYPE    | Bundle Ø min. | Bundle Ø max. | Colour     | Reel Length | Tools | Article-No. |
|---------|---------------|---------------|------------|-------------|-------|-------------|
| HEGPX06 | 3             | 9             | Black (BK) | 200 m       | 45    | 170-00060   |
| HEGPX09 | 5             | 16            | Black (BK) | 100 m       | 45    | 170-00090   |
| HEGPX12 | 6             | 19            | Black (BK) | 100 m       | 45    | 170-00120   |
| HEGPX20 | 12            | 32            | Black (BK) | 100 m       | 45    | 170-00200   |
| HEGPX30 | 19            | 45            | Black (BK) | 50 m        | 45    | 170-00300   |
| HEGPX40 | 32            | 70            | Black (BK) | 50 m        | 45    | 170-00400   |

All dimensions in mm. Subject to technical changes.  
Colour grey available on request. Cuts in any lengths. Minimum Order Quantity (MOQ) may differ from package content.

| Recommended Tools |
|-------------------|
| 45                |
| HSG0              |

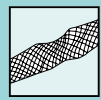
For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

EN 45545-2



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### Flame-retardant polyester braided sleeving

#### Helagaine HEGPETFR

HEGPETFR has excellent flame-retardant properties. It is particularly recommended for applications for instance in public transport, aircraft and telecommunications.

#### Features and benefits

- Made of sturdy polyester
- Self-extinguishing according to UL94 V0 for enhanced fire protection
- Highly flexible
- Easy to apply over irregular shapes
- Good abrasion resistance



Helagaine HEGPETFR braided sleeving.

|                                  |   |
|----------------------------------|---|
| <b>MATERIAL</b>                  | Polyester (PET)                         |
| <b>Operating Temperature</b>     | -50 °C to +150 °C, intermittent +220 °C |
| <b>Melting Point</b>             | +250 °C                                 |
| <b>Flammability</b>              | FMVSS 302, Type B, halogen free         |
| <b>EN 45545-2 Classification</b> | R22 HL2, R23 HL3                        |



| TYPE       | Bundle Ø min. | Bundle Ø max. | Colour                                       | Reel Length | Tools | Article-No. |
|------------|---------------|---------------|--|-------------|-------|-------------|
| HEGPETFR03 | 2             | 5             | Black with Grey Identification Yarn (BKIDGY) | 100 m       | 45    | 170-81000   |
| HEGPETFR04 | 3             | 7             | Black with Grey Identification Yarn (BKIDGY) | 100 m       | 45    | 170-81001   |
| HEGPETFR05 | 4             | 9             | Black with Grey Identification Yarn (BKIDGY) | 200 m       | 45    | 170-81002   |
| HEGPETFR06 | 5             | 11            | Black with Grey Identification Yarn (BKIDGY) | 100 m       | 45    | 170-81003   |
| HEGPETFR08 | 7             | 13            | Black with Grey Identification Yarn (BKIDGY) | 100 m       | 45    | 170-81004   |
| HEGPETFR10 | 9             | 15            | Black with Grey Identification Yarn (BKIDGY) | 50 m        | 45    | 170-81005   |
| HEGPETFR12 | 11            | 17            | Black with Grey Identification Yarn (BKIDGY) | 50 m        | 45    | 170-81006   |
| HEGPETFR15 | 13            | 20            | Black with Grey Identification Yarn (BKIDGY) | 50 m        | 45    | 170-81007   |
| HEGPETFR20 | 18            | 25            | Black with Grey Identification Yarn (BKIDGY) | 50 m        | 45    | 170-81008   |
| HEGPETFR25 | 22            | 30            | Black with Grey Identification Yarn (BKIDGY) | 50 m        | 45    | 170-81009   |
| HEGPETFR30 | 27            | 40            | Black with Grey Identification Yarn (BKIDGY) | 50 m        | 45    | 170-81010   |
| HEGPETFR40 | 35            | 50            | Black with Grey Identification Yarn (BKIDGY) | 50 m        | 45    | 170-81011   |
| HEGPETFR50 | 45            | 60            | Black with Grey Identification Yarn (BKIDGY) | 50 m        | 45    | 170-81012   |

All dimensions in mm. Subject to technical changes.

| Recommended Tools |
|-------------------|
| 45                |
| HSG0              |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

**EN 45545-2**

**NF F**

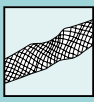
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Add items to your watchlist!

[www.HT.click/12-35](http://www.HT.click/12-35)





### Abrasion-resistant polyamide braided sleeving

#### Helagaine HEGPA66

Helagaine HEGPA66 offers especially high abrasion resistance and surface coverage.

#### Features and benefits

- Made from heavy-duty polyamide yarn
- Excellent abrasion resistance
- Highly flexible
- Easy to apply over irregular shapes
- Eases application by expanding when compressed
- Very high surface covering



Helagaine HEGPA66 braided sleeving.

|                                  |                      |
|----------------------------------|----------------------|
| <b>MATERIAL</b>                  | Polyamide 6.6 (PA66) |
| <b>Operating Temperature</b>     | -60 °C to +150 °C    |
| <b>Melting Point</b>             | +255 °C              |
| <b>Flammability</b>              | UL 94 V2, FMVSS 302  |
| <b>EN 45545-2 Classification</b> | R22 HL3, R23 HL3     |



| TYPE      | Bundle Ø min. | Bundle Ø max. | Colour     | Reel Length | Tools | Article-No. |
|-----------|---------------|---------------|------------|-------------|-------|-------------|
| HEGPA6604 | 3             | 6             | Black (BK) | 200 m       | 45    | 170-40400   |
| HEGPA6606 | 4             | 8             | Black (BK) | 100 m       | 45    | 170-40600   |
| HEGPA6608 | 5             | 10            | Black (BK) | 100 m       | 45    | 170-40800   |
| HEGPA6610 | 7             | 12            | Black (BK) | 100 m       | 45    | 170-41000   |
| HEGPA6612 | 8             | 14            | Black (BK) | 100 m       | 45    | 170-41200   |
| HEGPA6616 | 12            | 18            | Black (BK) | 50 m        | 45    | 170-41600   |
| HEGPA6620 | 15            | 23            | Black (BK) | 50 m        | 45    | 170-42000   |
| HEGPA6625 | 18            | 28            | Black (BK) | 50 m        | 45    | 170-42500   |
| HEGPA6630 | 25            | 32            | Black (BK) | 50 m        | 45    | 170-43000   |
| HEGPA6640 | 30            | 44            | Black (BK) | 50 m        | 45    | 170-44000   |
| HEGPA6650 | 40            | 55            | Black (BK) | 50 m        | 45    | 170-45000   |
| HEGPA6660 | 50            | 65            | Black (BK) | 50 m        | 45    | 170-46000   |

All dimensions in mm. Subject to technical changes.  
Colour grey available on request. Cuts in any lengths. Minimum Order Quantity (MOQ) may differ from package content.

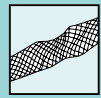
| Recommended Tools |
|-------------------|
| 45                |
| HSGO              |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

**EN 45545-2**

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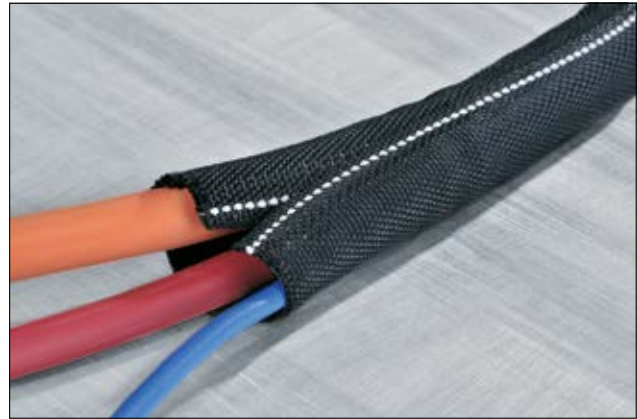
### Self-closing, flame-retardant polyester sleeving

#### Helagaine Twist-In-FRX

Helagaine Twist-In-FRX is used wherever fire protection is essential, such as in the railway, aerospace and shipbuilding industries.

#### Features and benefits

- Self-closing sleeve made from polyester
- Optimal fire protection
- Easy and quick installation and removal
- Ideal for retro-fitting
- Allows access to bundle for assembly, inspection and maintenance



Helagaine Twist-In-FRX is used wherever fire safety is important.



[www.HellermannTyton.com/Twist-In-rail21](http://www.HellermannTyton.com/Twist-In-rail21)

|                                  |                  |
|----------------------------------|------------------|
| <b>MATERIAL</b>                  | Polyester (PET)  |
| <b>EN 45545-2 Classification</b> | R22 HL3, R23 HL3 |



| TYPE                   | Bundle Ø min. | Bundle Ø max. | Colour  | Reel Length | Article-No. |
|------------------------|---------------|---------------|---|-------------|-------------|
| <b>Twist-In-FRX 05</b> | 5             | 6             | Black with White Identification Yarn (BKIDWH) | 100 m       | 170-01150   |
| <b>Twist-In-FRX 08</b> | 8             | 9             | Black with White Identification Yarn (BKIDWH) | 100 m       | 170-01151   |
| <b>Twist-In-FRX 13</b> | 13            | 14            | Black with White Identification Yarn (BKIDWH) | 50 m        | 170-01153   |
| <b>Twist-In-FRX 19</b> | 19            | 20            | Black with White Identification Yarn (BKIDWH) | 25 m        | 170-01154   |
| <b>Twist-In-FRX 25</b> | 25            | 26            | Black with White Identification Yarn (BKIDWH) | 25 m        | 170-01155   |
| <b>Twist-In-FRX 29</b> | 29            | 30            | Black with White Identification Yarn (BKIDWH) | 25 m        | 170-01156   |
| <b>Twist-In-FRX 32</b> | 32            | 34            | Black with White Identification Yarn (BKIDWH) | 25 m        | 170-01157   |
| <b>Twist-In-FRX 38</b> | 38            | 40            | Black with White Identification Yarn (BKIDWH) | 25 m        | 170-01158   |
| <b>Twist-In-FRX 50</b> | 50            | 52            | Black with White Identification Yarn (BKIDWH) | 25 m        | 170-01159   |

All dimensions in mm. Subject to technical changes.

**EN 45545-2**

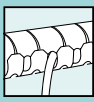
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Add items to your watchlist!

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# Cable Protection Systems

## Protective Tubing and Spiral Binding

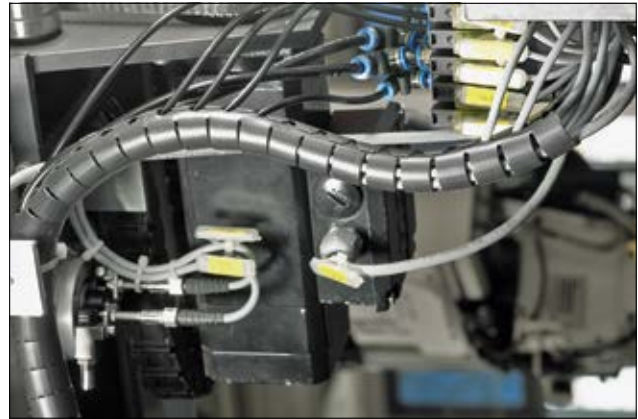
### Helawrap cable cover

#### HWPAV0 flame-retardant and abrasion-resistant

Helawrap HWPAV0 is easily and rapidly applied over pre-mounted cables. It has excellent flame-retardant properties and is halogen-free.

#### Features and benefits

- Ideal solution for bundling, protecting and fixing cables
- Quick and effortless to apply
- Self-extinguishing according to UL94 V0
- Very good abrasion protection
- Special profile enables branching off cable at any point
- Can be removed and reapplied often
- Handy applicator tool included



Cables can be branched off at any point for better, more flexible protection.



[www.HellermannTyton.com/Helawrap-rail21](http://www.HellermannTyton.com/Helawrap-rail21)

|                                  |  |
|----------------------------------|--|
| <b>MATERIAL</b>                  | Polyamide 6 V0 (PA6V0)                 |
| <b>Operating Temperature</b>     | -40 °C to +90 °C, intermittent +120 °C |
| <b>Flammability</b>              | UL 94 V0                               |
| <b>EN 45545-2 Classification</b> | R22 HL2, R23 HL2                       |



| TYPE     | Bundle Ø max. | Colour     | Reel Length | Application Tool | Article-No. |
|----------|---------------|------------|-------------|------------------|-------------|
| HWPAV08  | 9             | Black (BK) | 25 m        | HAT8             | 161-63101   |
| HWPAV016 | 16            | Black (BK) | 25 m        | HAT16            | 161-63201   |
| HWPAV020 | 21            | Black (BK) | 25 m        | HAT20            | 161-63301   |
| HWPAV025 | 27            | Black (BK) | 25 m        | HAT25            | 161-63401   |
| HWPAV030 | 32            | Black (BK) | 25 m        | HAT30            | 161-63501   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content.



Insert one or more cables into the insertion slot of the HAT applicator tool.



Place the HAT applicator tool in one end of the Helawrap cable cover.



Simply slide the HAT applicator tool through the Helawrap cover.

EN 45545-2



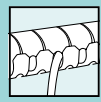
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### PA Flame-retardant Spiral Binding

#### SBPAV0

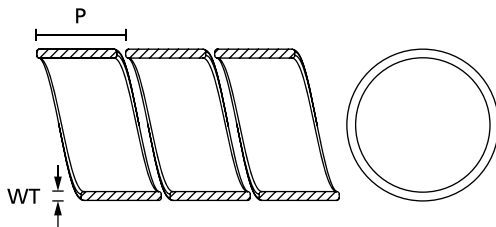
Due to its excellent flame protection properties, SBPAV0 spiral binding is particularly suitable for the rail and aviation industries as well as public buildings.

#### Features and benefits

- Organises and protects cables and hoses
- Self-extinguishing according to UL94 V0
- Very good protection against abrasion
- Suitable for retro-fitting
- Cables branch out at any point
- Wide range of diameters



Spiral binding SBPAV0.



Spiral binding

|                                  |  |
|----------------------------------|--|
| <b>MATERIAL</b>                  | Polyamide 6 V0 (PA6V0)                 |
| <b>Operating Temperature</b>     | -60 °C to +95 °C, intermittent +130 °C |
| <b>Flammability</b>              | UL 94 V0                               |
| <b>EN 45545-2 Classification</b> | R22 HL2, R23 HL2                       |



| TYPE      | Nominal Ø | Wall (WT) | Pitch (P) | Bundle Ø min. | Bundle Ø max. | Colour     | Reel Length | Article-No. |
|-----------|-----------|-----------|-----------|---------------|---------------|------------|-------------|-------------|
| SBPAV01.5 | 1.5       | 0.4       | 6.0       | 1.6           | 8             | Black (BK) | 30 m        | 161-44000   |
| SBPAV04   | 4         | 0.6       | 7.8       | 5             | 20            | Black (BK) | 30 m        | 161-44100   |
| SBPAV09   | 9         | 1.0       | 12.5      | 10            | 100           | Black (BK) | 30 m        | 161-44200   |
| SBPAV016  | 16        | 1.2       | 16.0      | 20            | 150           | Black (BK) | 30 m        | 161-44300   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content.

**EN 45545-2**

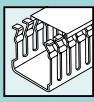
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### Halogen-free wiring ducts

#### HelaDuct HTWD-HF (metric sizes)

HelaDuct HTWD-HF wiring ducts are used to route and protect wires in control panels and switching systems where there are high demands on personal or material safety in case of fire, such as in public transport, tunnels, data-processing centers or public buildings.

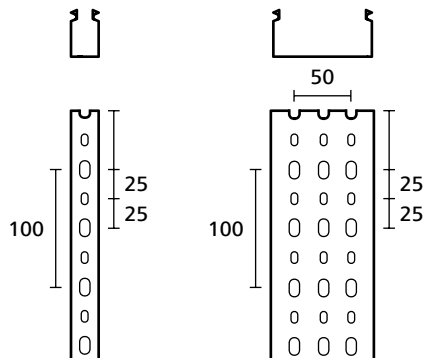
#### Features and benefits

- Excellent fire-safety characteristics according to UL94 und EN 45545-2
- Narrow slots suitable for small-diameter wires
- Smooth, burr-free edges protect installers from injury and wires from damage
- Fingers can be removed with no sharp edges at pre-notched snap-off points
- Further pre-notched snap-off point at base of sidewall allow cutting out and removing sections of sidewall with no sharp edges
- Duct covers hold securely even in a vertical position and under vibration
- Cover is flush with side of duct, allowing for tight, contiguous placement of duct
- Base perforation according to DIN EN 50085



HelaDuct HTWD-HF - halogenfree wiring duct.

|                                  |   |
|----------------------------------|---|
| <b>MATERIAL</b>                  | Acrylonitrile Butadiene Styrene alloyed with Polycarbonate (PC/ABS) |
| <b>Colour</b>                    | Grey (GY)   |
| <b>Operating Temperature</b>     | -25 °C to +90 °C  |
| <b>Flammability</b>              | UL 94 V0  |
| <b>EN 45545-2 Classification</b> | R22 HL2, R23 HL2  |



Width 25-60

Width 80-120

HF ✓

RoHS ✓

| TYPE          | Width (W) | Height (H) | Width (W2) | Width (W3) | Pack Cont. | Article-No. |
|---------------|-----------|------------|------------|------------|------------|-------------|
| HTWD-HF-25X25 | 25.0      | 25.0       | 6          | 6.5        | 50.0 m     | 183-22525   |
| HTWD-HF-25X40 | 25.0      | 40.0       | 6          | 6.5        | 48.0 m     | 183-22540   |
| HTWD-HF-25X60 | 25.0      | 60.0       | 6          | 6.5        | 60.0 m     | 183-25060   |
| HTWD-HF-25X80 | 25.0      | 80.0       | 6          | 6.5        | 20.0 m     | 183-22580   |
| HTWD-HF-40X25 | 40.0      | 25.0       | 6          | 6.5        | 48.0 m     | 183-24025   |
| HTWD-HF-40X40 | 40.0      | 40.0       | 6          | 6.5        | 50.0 m     | 183-24040   |
| HTWD-HF-40X60 | 40.0      | 60.0       | 6          | 6.5        | 40.0 m     | 183-24060   |
| HTWD-HF-40X80 | 40.0      | 80.0       | 6          | 6.5        | 20.0 m     | 183-24080   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content.

EN 45545-2



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### Halogen-free wiring ducts

#### Heladuct HTWD-HF (metric sizes)

| TYPE            | Width (W) | Height (H) | Width (W2) | Width (W3) | Pack Cont. | Article-No. |
|-----------------|-----------|------------|------------|------------|------------|-------------|
| HTWD-HF-60X40   | 60.0      | 40.0       | 6          | 6.5        | 40.0 m     | 183-26040   |
| HTWD-HF-60X60   | 60.0      | 60.0       | 6          | 6.5        | 24.0 m     | 183-26060   |
| HTWD-HF-60X80   | 60.0      | 80.0       | 6          | 6.5        | 20.0 m     | 183-26080   |
| HTWD-HF-60X100  | 60.0      | 100.0      | 6          | 6.5        | 12.0 m     | 183-26010   |
| HTWD-HF-80X40   | 80.0      | 40.0       | 6          | 6.5        | 20.0 m     | 183-28040   |
| HTWD-HF-80X60   | 80.0      | 60.0       | 6          | 6.5        | 20.0 m     | 183-28060   |
| HTWD-HF-80X80   | 80.0      | 80.0       | 6          | 6.5        | 12.0 m     | 183-28080   |
| HTWD-HF-80X100  | 80.0      | 100.0      | 6          | 6.5        | 10.0 m     | 183-28010   |
| HTWD-HF-100X40  | 100.0     | 40.0       | 6          | 6.5        | 20.0 m     | 183-22040   |
| HTWD-HF-100X60  | 100.0     | 60.0       | 6          | 6.5        | 16.0 m     | 183-21060   |
| HTWD-HF-100X80  | 100.0     | 80.0       | 6          | 6.5        | 12.0 m     | 183-21080   |
| HTWD-HF-100X100 | 100.0     | 100.0      | 6          | 6.5        | 8.0 m      | 183-21010   |
| HTWD-HF-120X60  | 120.0     | 60.0       | 6          | 6.5        | 12.0 m     | 183-21260   |
| HTWD-HF-120X80  | 120.0     | 80.0       | 6          | 6.5        | 16.0 m     | 183-21280   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content.

EN 45545-2



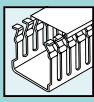
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### HTWD Halogen Free Wiring Duct

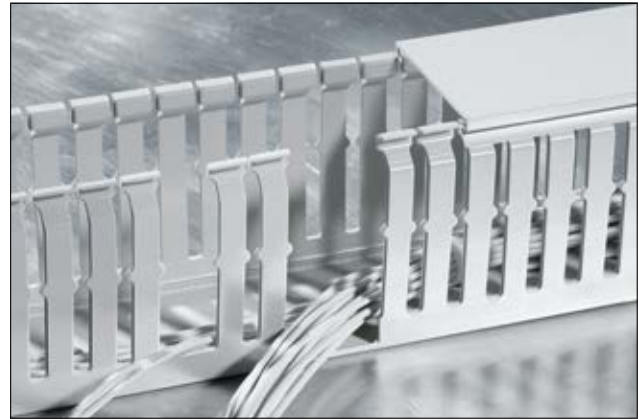
#### HelaDuct HTWD-HF (DIN sizes)

HellermannTyton HTWD-HF halogen-free ducts are used wherever there are high demands on personal or material safety, such as public transport, tunnels, lifts and data processing centres.

Note: Halogen-free PC+ABS is not resistant to all oils and greases.

#### Features and benefits

- Excellent fire-safety characteristics
- Narrow slots suitable for small-diameter wires
- Smooth, burr-free edges protect installers from injury and wires from damage
- Fingers can be removed with no sharp edges at pre-notched snap-off points
- Further pre-notched snap-off point at base of sidewall allow cutting out and removing sections of sidewall with no sharp edges
- Duct covers hold securely even in a vertical position and under vibration
- Cover is flush with side of duct, allowing for tight, contiguous placement of duct
- Base perforation according to DIN EN 50085



The HelaDuct HTWD-HF halogen-free wiring ducts meet the highest requirements of fire safety.

|                                  |   |
|----------------------------------|---|
| <b>MATERIAL</b>                  | Acrylonitrile Butadiene Styrene alloyed with Polycarbonate (PC/ABS) |
| <b>Operating Temperature</b>     | -25 °C to +90 °C  |
| <b>Colour</b>                    | Grey RAL 7035 (RAL7035)   |
| <b>Length (L)</b>                | 2 m   |
| <b>EN 45545-2 Classification</b> | R22 HL2, R23 HL2  |



| TYPE              | Width (W) | Height (H) | Width (W2) | Width (W3) | Pack Cont. | Colour  | Article-No. |
|-------------------|-----------|------------|------------|------------|------------|---------|-------------|
| HTWD-HF-25X25     | 25        | 25.0       | 5          | 7.5        | 48 m       | RAL7035 | 183-12525   |
| HTWD-HF-25X37.5   | 25        | 37.5       | 5          | 7.5        | 54 m       | RAL7035 | 183-12537   |
| HTWD-HF-25X50     | 25        | 50.0       | 5          | 7.5        | 44 m       | RAL7035 | 183-12550   |
| HTWD-HF-25X75     | 25        | 75.0       | 5          | 7.5        | 36 m       | RAL7035 | 183-22575   |
| HTWD-HF-37.5X37.5 | 37.5      | 37.5       | 5          | 7.5        | 40 m       | RAL7035 | 183-13737   |
| HTWD-HF-37.5X50   | 37.5      | 50.0       | 5          | 7.5        | 32 m       | RAL7035 | 183-13750   |
| HTWD-HF-37.5X75   | 37.5      | 75.0       | 5          | 7.5        | 24 m       | RAL7035 | 183-13775   |
| HTWD-HF-50X37.5   | 50        | 37.5       | 5          | 7.5        | 32 m       | RAL7035 | 183-05037   |
| HTWD-HF-50X50     | 50        | 50.0       | 5          | 7.5        | 42 m       | RAL7035 | 183-15050   |
| HTWD-HF-50X75     | 50        | 75.0       | 5          | 7.5        | 28 m       | RAL7035 | 183-15075   |
| HTWD-HF-75X50     | 75        | 50.0       | 5          | 7.5        | 28 m       | RAL7035 | 183-17550   |
| HTWD-HF-75X75     | 75        | 75.0       | 5          | 7.5        | 24 m       | RAL7035 | 183-17575   |
| HTWD-HF-100X50    | 100       | 50.0       | 5          | 7.5        | 20 m       | RAL7035 | 183-11050   |
| HTWD-HF-100X75    | 100       | 75.0       | 5          | 7.5        | 16 m       | RAL7035 | 183-11075   |
| HTWD-HF-125X75    | 125       | 75.0       | 5          | 7.5        | 16 m       | RAL7035 | 183-12257   |

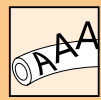
All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content.

EN 45545-2

NF F

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### Shrinkable markers „Continuous Tube“, thermal transfer

#### TLFX – 2:1 Rail Limited Fire Hazard

TLFX is a halogen free European rail approved 2:1 heat shrink marker material supplied as a continuous tube and printable on both sides. Special material properties show low smoke propagation, density and toxicity. The tubing has been especially prepared so that print performance is excellent at all times. HellermannTyton's printer range allow users to create a high quality print. In addition it is possible to either perforate the tubing at pre-determined lengths or fully sever the markers.

#### Features and benefits

- Shrink ratio 2:1
- Halogen Free
- Low smoke propagation, density and toxicity
- Available in yellow or white
- Cable range 50.8 mm to 1.2 mm
- Delivery in convenient storage boxes

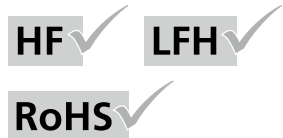


TLFX- high performance halogen free heat shrink tube.



TLFX – European rail approved heat shrink marker material.

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>MATERIAL</b>                  | Polyolefin, cross-linked (PO-X) |
| <b>Operating Temperature</b>     | -55 °C to +125 °C               |
| <b>Min. Shrink Temperature</b>   | +70 °C                          |
| <b>Shrink Ratio</b>              | 2:1                             |
| <b>Recommended Ribbon Type</b>   | TTDTHOUT                        |
| <b>Thermal Transfer Printer</b>  | TT431, TT4030, TrakMark DS      |
| <b>EN 45545-2 Classification</b> | R22 HL3, R23 HL3                |



| TYPE     | Supplied<br>Ø D min. | Recov.<br>Ø d max. | Wall<br>(WT) | Pack<br>Cont. | Colour      | Article-No. |
|----------|----------------------|--------------------|--------------|---------------|-------------|-------------|
| TLFX24WH | 2.4                  | 1.2                | 0.57         | 144 m         | White (WH)  | 554-51000   |
| TLFX24YE | 2.4                  | 1.2                | 0.57         | 144 m         | Yellow (YE) | 554-51001   |
| TLFX32WH | 3.2                  | 1.6                | 0.58         | 126 m         | White (WH)  | 554-51100   |
| TLFX32YE | 3.2                  | 1.6                | 0.58         | 126 m         | Yellow (YE) | 554-51101   |
| TLFX48WH | 4.8                  | 2.4                | 0.61         | 108 m         | White (WH)  | 554-51200   |
| TLFX48YE | 4.8                  | 2.4                | 0.61         | 108 m         | Yellow (YE) | 554-51201   |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

**EN 45545-2**

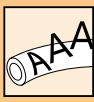
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### Shrinkable markers „Continuous Tube“, thermal transfer

TLFX – 2:1 Rail Limited Fire Hazard



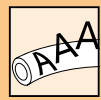
| TYPE      | Supplied<br>Ø D min. | Recov.<br>Ø d max. | Wall<br>(WT) | Pack<br>Cont. | Colour      | Article-No. |
|-----------|----------------------|--------------------|--------------|---------------|-------------|-------------|
| TLFX64WH  | 6.4                  | 3.2                | 0.61         | 90 m          | White (WH)  | 554-51300   |
| TLFX64YE  | 6.4                  | 3.2                | 0.61         | 90 m          | Yellow (YE) | 554-51301   |
| TLFX95WH  | 9.5                  | 4.8                | 0.66         | 72 m          | White (WH)  | 554-51400   |
| TLFX95YE  | 9.5                  | 4.8                | 0.66         | 72 m          | Yellow (YE) | 554-51401   |
| TLFX127WH | 12.7                 | 6.4                | 0.68         | 54 m          | White (WH)  | 554-51500   |
| TLFX127YE | 12.7                 | 6.4                | 0.68         | 54 m          | Yellow (YE) | 554-51501   |
| TLFX190WH | 19.0                 | 9.5                | 0.69         | 30 m          | White (WH)  | 554-51600   |
| TLFX190YE | 19.0                 | 9.5                | 0.69         | 30 m          | Yellow (YE) | 554-51601   |
| TLFX254WH | 25.4                 | 12.7               | 0.69         | 30 m          | White (WH)  | 554-51700   |
| TLFX254YE | 25.4                 | 12.7               | 0.69         | 30 m          | Yellow (YE) | 554-51701   |
| TLFX381WH | 38.1                 | 19.0               | 0.70         | 13 m          | White (WH)  | 554-51800   |
| TLFX381YE | 38.1                 | 19.0               | 0.70         | 13 m          | Yellow (YE) | 554-51801   |
| TLFX508WH | 50.8                 | 25.4               | 0.73         | 10 m          | White (WH)  | 554-50900   |
| TLFX508YE | 50.8                 | 25.4               | 0.73         | 10 m          | Yellow (YE) | 554-50901   |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

**EN 45545-2**

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### Shrinkable markers „Ladder Style“, thermal transfer

#### TLFX DS – 2:1 Rail Limited Fire Hazard „Ladder Style“

TLFX DS is a halogen free European rail approved 2:1 heat shrink marker material supplied pre-cut and formatted into a convenient „ladder“ system. Special material properties show low smoke propagation, density and toxicity. This pre-cut format not only allows printing on both sides of the marker but the user can also easily choose and pick each required marker. Special material properties show low smoke propagation, density and toxicity. The tubing has been especially prepared so that the print performance is excellent at all times using HellermannTyton’s printer range.

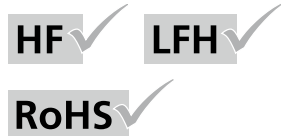
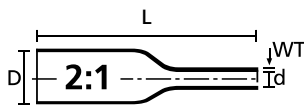
#### Features and benefits

- Shrink ratio 2:1
- Halogen Free
- Low smoke propagation, density and toxicity
- 50 mm, 25 mm and 16 mm pre-cut marker options as standard, other lengths available on request
- Available in yellow or white
- Cable range 38.1 mm to 1.2 mm
- Delivery in convenient storage boxes



Shrinkable rail approved markers TLFX DS.

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>MATERIAL</b>                  | Polyolefin, cross-linked (PO-X) |
| <b>Operating Temperature</b>     | -55 °C to +105 °C               |
| <b>Min. Shrink Temperature</b>   | +100 °C                         |
| <b>Shrink Ratio</b>              | 2:1                             |
| <b>Recommended Ribbon Type</b>   | TTDTHOUT                        |
| <b>Thermal Transfer Printer</b>  | TT431, TT4030, TrakMark DS      |
| <b>EN 45545-2 Classification</b> | R22 HL3, R23 HL3                |



| TYPE             | Supplied<br>Ø D min. | Recov.<br>Ø d max. | Length<br>(L) | Wall<br>(WT) | Pack<br>Cont. | Colour      | Article-No. |
|------------------|----------------------|--------------------|---------------|--------------|---------------|-------------|-------------|
| TLFX24DS-2x25YE  | 2.4                  | 1.2                | 25.0          | 0.52         | 10,000 pcs.   | Yellow (YE) | 553-60029   |
| TLFX24DS-1x50YE  | 2.4                  | 1.2                | 50.0          | 0.52         | 5,000 pcs.    | Yellow (YE) | 553-60010   |
| TLFX32DS-2x25YE  | 3.2                  | 1.6                | 25.0          | 0.64         | 2,000 pcs.    | Yellow (YE) | 553-60121   |
| TLFX32DS-2x25YE  | 3.2                  | 1.6                | 25.0          | 0.64         | 10,000 pcs.   | Yellow (YE) | 553-60030   |
| TLFX32DS-1x50YE  | 3.2                  | 1.6                | 50.0          | 0.64         | 1,000 pcs.    | Yellow (YE) | 553-60125   |
| TLFX32DS-1x50YE  | 3.2                  | 1.6                | 50.0          | 0.64         | 5,000 pcs.    | Yellow (YE) | 553-60011   |
| TLFX48DS-2x25YE  | 4.8                  | 2.4                | 25.0          | 0.64         | 10,000 pcs.   | Yellow (YE) | 553-60031   |
| TLFX48DS-1x50YE  | 4.8                  | 2.4                | 50.0          | 0.64         | 5,000 pcs.    | Yellow (YE) | 553-60012   |
| TLFX64DS-2x25YE  | 6.4                  | 3.2                | 25.0          | 0.73         | 6,000 pcs.    | Yellow (YE) | 553-60032   |
| TLFX64DS-1x50YE  | 6.4                  | 3.2                | 50.0          | 0.73         | 3,000 pcs.    | Yellow (YE) | 553-60013   |
| TLFX95DS-2x25YE  | 9.5                  | 4.8                | 25.0          | 0.70         | 5,000 pcs.    | Yellow (YE) | 553-60033   |
| TLFX95DS-1x50YE  | 9.5                  | 4.8                | 50.0          | 0.70         | 2,500 pcs.    | Yellow (YE) | 553-60014   |
| TLFX127DS-2x25YE | 12.7                 | 6.4                | 25.0          | 0.70         | 3,000 pcs.    | Yellow (YE) | 553-60034   |
| TLFX127DS-1x50YE | 12.7                 | 6.4                | 50.0          | 0.70         | 1,500 pcs.    | Yellow (YE) | 553-60015   |
| TLFX190DS-2x25YE | 19.0                 | 9.5                | 25.0          | 0.78         | 3,000 pcs.    | Yellow (YE) | 553-60035   |
| TLFX190DS-1x50YE | 19.0                 | 9.5                | 50.0          | 0.78         | 1,500 pcs.    | Yellow (YE) | 553-60016   |
| TLFX254DS-2x25YE | 25.4                 | 12.7               | 25.0          | 0.93         | 2,000 pcs.    | Yellow (YE) | 553-60036   |
| TLFX254DS-1x50YE | 25.4                 | 12.7               | 50.0          | 0.93         | 1,000 pcs.    | Yellow (YE) | 553-60017   |
| TLFX381DS-2x25YE | 38.1                 | 19.1               | 25.0          | 0.98         | 1,000 pcs.    | Yellow (YE) | 553-60037   |
| TLFX381DS-1x50YE | 38.1                 | 19.1               | 50.0          | 0.98         | 500 pcs.      | Yellow (YE) | 553-60018   |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

**EN 45545-2**

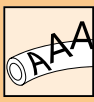
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### Shrinkable markers „Continuous Tube“, thermal transfer

#### TDRT - 2:1 Rail Diesel Resistant

TDRT is a diesel resistant 2:1 heat shrink material which is rail approved. It is supplied as a continuous tube and printable on both sides.

The TDRT material is ideal where resistance to diesel, organic fluids, common fuels, lubricants and solvents properties are required, e.g. in mass transit, aerospace, marine and industrial installations. The tubing has been especially prepared so that the print performance is excellent at all times using HellermannTyton's printer range. In addition it is possible to either perforate the tubing at pre-determined lengths or fully sever the markers.

The material is also especially formulated to be printable with laser beam printers.

#### Features and benefits

- Shrink ratio 2:1
- Resistant to diesel and common fluids
- Available in yellow as standard and white on request
- Delivery in convenient storage boxes

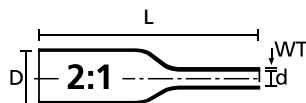


Certified diesel resistant heatshrink markers TDRT.



Railway-specific products offer best solutions.

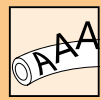
|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>MATERIAL</b>                 | Polyolefin, cross-linked (PO-X) |
| <b>Operating Temperature</b>    | -55 °C to +135 °C               |
| <b>Min. Shrink Temperature</b>  | +120 °C                         |
| <b>Shrink Ratio</b>             | 2:1                             |
| <b>Recommended Ribbon Type</b>  | TTDTHOUT                        |
| <b>Thermal Transfer Printer</b> | TT431, TT4030, TrakMark DS      |



| TYPE      | Supplied<br>Ø D min. | Recov.<br>Ø d max. | Wall<br>(WT) | Pack<br>Cont. | Colour      | Article-No. |
|-----------|----------------------|--------------------|--------------|---------------|-------------|-------------|
| TDRT2.4YE | 2.79                 | 1.18               | 0.49         | 110 m         | Yellow (YE) | 553-62020   |
| TDRT3.2YE | 3.64                 | 1.59               | 0.51         | 110 m         | Yellow (YE) | 553-62021   |
| TDRT4.8YE | 5.26                 | 2.36               | 0.54         | 110 m         | Yellow (YE) | 553-62022   |
| TDRT6.4YE | 6.92                 | 3.18               | 0.56         | 110 m         | Yellow (YE) | 553-62023   |
| TDRT9.5YE | 10.20                | 4.75               | 0.59         | 72 m          | Yellow (YE) | 553-62024   |
| TDRT12YE  | 13.5                 | 6.35               | 0.60         | 54 m          | Yellow (YE) | 553-62030   |
| TDRT18YE  | 20.1                 | 9.53               | 0.62         | 26 m          | Yellow (YE) | 553-62031   |
| TDRT25YE  | 26.7                 | 12.7               | 0.63         | 26 m          | Yellow (YE) | 553-62032   |
| TDRT38YE  | 39.8                 | 19.1               | 0.64         | 13 m          | Yellow (YE) | 553-62033   |
| TDRT51YE  | 53.0                 | 25.4               | 0.64         | 10 m          | Yellow (YE) | 553-62034   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content.





### Shrinkable markers „Ladder Style“, thermal transfer

#### TDRT DS - 2:1 Rail Diesel Resistant „Ladder Style“

TDRT DS is a diesel resistant 2:1 heat shrink material which is rail approved. The material is pre-cut and formatted into a convenient „ladder“ system that allows printing on both sides of the marker.

The TDRT DS material is ideal where resistance to diesel, organic fluids, common fuels, lubricants and solvents properties are required, e.g. in mass transit, aerospace, marine and industrial installations. This pre-cut format not only allows printing on both sides of the marker but the user can also easily choose and pick each required marker. The tubing has been especially prepared so that the print performance is excellent at all times using HellermannTyton's printer range.

The material is also especially formulated to be printable with laser beam printers.

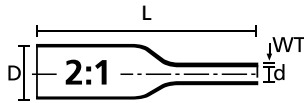


Shrinkable rail diesel resistant markers TDRT DS.

#### Features and benefits

- Shrink ratio 2:1
- Resistant to diesel and common fluids
- 50 mm and 25 mm lengths are standard, other lengths available on request
- Available in yellow as standard and white on request
- Delivery in convenient storage boxes

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>MATERIAL</b>                 | Polyolefin, cross-linked (PO-X) |
| <b>Operating Temperature</b>    | -55 °C to +135 °C               |
| <b>Min. Shrink Temperature</b>  | +120 °C                         |
| <b>Shrink Ratio</b>             | 2:1                             |
| <b>Recommended Ribbon Type</b>  | TTDTHOUT                        |
| <b>Thermal Transfer Printer</b> | TT431, TT4030, TrakMark DS      |



| TYPE             | Supplied Ø D min. | Recov. Ø d max. | Length (L) | Wall (WT) | Pack Cont.  | Colour      | Article-No. |
|------------------|-------------------|-----------------|------------|-----------|-------------|-------------|-------------|
| TDRT2.4DS-2X25YE | 2.79              | 1.18            | 25.0       | 0.49      | 10,000 pcs. | Yellow (YE) | 553-70101   |
| TDRT2.4DS-1X50YE | 2.79              | 1.18            | 50.0       | 0.49      | 5,000 pcs.  | Yellow (YE) | 553-70100   |
| TDRT3.2DS-2X25YE | 3.64              | 1.59            | 25.0       | 0.51      | 10,000 pcs. | Yellow (YE) | 553-70103   |
| TDRT3.2DS-1X50YE | 3.64              | 1.59            | 50.0       | 0.51      | 5,000 pcs.  | Yellow (YE) | 553-70102   |
| TDRT4.8DS-2X25YE | 5.26              | 2.36            | 25.0       | 0.54      | 10,000 pcs. | Yellow (YE) | 553-70105   |
| TDRT4.8DS-1X50YE | 5.26              | 2.36            | 50.0       | 0.54      | 5,000 pcs.  | Yellow (YE) | 553-70104   |
| TDRT6.4DS-2X25YE | 6.92              | 3.18            | 25.0       | 0.56      | 6,000 pcs.  | Yellow (YE) | 553-70107   |
| TDRT6.4DS-1X50YE | 6.92              | 3.18            | 50.0       | 0.56      | 3,000 pcs.  | Yellow (YE) | 553-70106   |
| TDRT9.5DS-2X25YE | 10.20             | 4.75            | 25.0       | 0.59      | 5,000 pcs.  | Yellow (YE) | 553-70109   |
| TDRT9.5DS-1X50YE | 10.20             | 4.75            | 50.0       | 0.59      | 2,500 pcs.  | Yellow (YE) | 553-70108   |
| TDRT12DS-2X25YE  | 13.50             | 6.35            | 25.0       | 0.60      | 3,000 pcs.  | Yellow (YE) | 553-70111   |
| TDRT12DS-1X50YE  | 13.50             | 6.35            | 50.0       | 0.60      | 1,500 pcs.  | Yellow (YE) | 553-70110   |
| TDRT18DS-2X25YE  | 20.10             | 9.53            | 25.0       | 0.62      | 3,000 pcs.  | Yellow (YE) | 553-70113   |
| TDRT18DS-1X50YE  | 20.10             | 9.53            | 50.0       | 0.62      | 1,500 pcs.  | Yellow (YE) | 553-70112   |
| TDRT25DS-2X25YE  | 26.70             | 12.70           | 25.0       | 0.63      | 2,000 pcs.  | Yellow (YE) | 553-70115   |
| TDRT25DS-1X50YE  | 26.70             | 12.70           | 50.0       | 0.63      | 1,000 pcs.  | Yellow (YE) | 553-70114   |
| TDRT38DS-2X25YE  | 39.80             | 19.10           | 25.0       | 0.64      | 1,000 pcs.  | Yellow (YE) | 553-70117   |
| TDRT38DS-1X50YE  | 39.80             | 19.10           | 50.0       | 0.64      | 500 pcs.    | Yellow (YE) | 553-70116   |
| TDRT51DS-2X25YE  | 53.80             | 25.40           | 25.0       | 0.64      | 1,000 pcs.  | Yellow (YE) | 553-70119   |
| TDRT51DS-1X50YE  | 53.80             | 25.40           | 50.0       | 0.64      | 500 pcs.    | Yellow (YE) | 553-70118   |

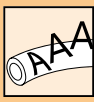
All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content.



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### Shrinkable markers „Ladder Style“, thermal transfer

**TLFD DS – 2:1 Rail Limited Fire Hazard, fluid resistant „Ladder Style“**

TLFD DS is an innovative 2:1 heat shrink marker which is halogen free, low fire hazard and fluid resistant. This rail and EN approved material is supplied pre-cut and formatted into a convenient „ladder“ system.

The TLFD DS marker’s material properties are ideal for applications where fire protection is of great importance. TLFD DS shows low smoke propagation, density and toxicity and is also ideal for applications where resistance to organic fluids, common fuels, lubricants and solvents properties are required.

The pre-cut format not only allows printing on both sides of the marker but the user can also easily choose and pick each required marker. The tubing has been especially prepared so that the print performance is excellent at all times using HellermannTyton’s printer range.

#### Features and benefits

- Shrink ratio 2:1
- Halogen free and fluid resistant
- Low smoke propagation and toxicity
- Fluid resistant
- „Ladder Style“ format for ease of use
- Available in yellow and white
- 50 mm and 25 mm pre-cut markers as standard

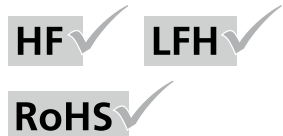
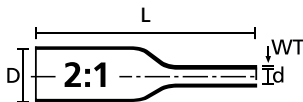


TLFD DS shrinkable markers – halogen-free and fluid resistant.



TLFD DS shrinkable markers for more safety and clarity in the switchboard.

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>MATERIAL</b>                  | Polyolefin, cross-linked (PO-X) |
| <b>Operating Temperature</b>     | -55 °C to +125 °C               |
| <b>Min. Shrink Temperature</b>   | +120 °C                         |
| <b>Shrink Ratio</b>              | 2:1                             |
| <b>Recommended Ribbon Type</b>   | TTDTHOUT                        |
| <b>Thermal Transfer Printer</b>  | TT431, TT4030, TrakMark DS      |
| <b>EN 45545-2 Classification</b> | R22 HL3, R23 HL3                |



| TYPE            | Supplied Ø D min. | Recov. Ø d max. | Length (L) | Wall (WT) | Pack Cont.  | Colour      | Article-No. |
|-----------------|-------------------|-----------------|------------|-----------|-------------|-------------|-------------|
| TLFD24DS-2X25WH | 2.59              | 1.2             | 25.0       | 0.49      | 10,000 pcs. | White (WH)  | 533-65001   |
| TLFD24DS-2X25YE | 2.59              | 1.2             | 25.0       | 0.49      | 10,000 pcs. | Yellow (YE) | 533-65019   |
| TLFD24DS-1X50WH | 2.59              | 1.2             | 50.0       | 0.49      | 5,000 pcs.  | White (WH)  | 533-65000   |
| TLFD24DS-1X50YE | 2.59              | 1.2             | 50.0       | 0.49      | 5,000 pcs.  | Yellow (YE) | 533-65018   |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

**EN 45545-2**

**EN 50343**

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### Shrinkable markers „Ladder Style“, thermal transfer

**TLFD DS – 2:1 Rail Limited Fire Hazard, fluid resistant „Ladder Style“**

| TYPE             | Supplied Ø D min. | Recov. Ø d max. | Length (L) | Wall (WT) | Pack Cont.  | Colour      | Article-No. |
|------------------|-------------------|-----------------|------------|-----------|-------------|-------------|-------------|
| TLFD32DS-2X25WH  | 3.41              | 1.6             | 25.0       | 0.51      | 10,000 pcs. | White (WH)  | 533-65003   |
| TLFD32DS-2X25YE  | 3.41              | 1.6             | 25.0       | 0.51      | 10,000 pcs. | Yellow (YE) | 533-65021   |
| TLFD32DS-1X50WH  | 3.41              | 1.6             | 50.0       | 0.51      | 5,000 pcs.  | White (WH)  | 533-65002   |
| TLFD32DS-1X50YE  | 3.41              | 1.6             | 50.0       | 0.51      | 5,000 pcs.  | Yellow (YE) | 533-65020   |
| TLFD48DS-2X25WH  | 5.01              | 2.4             | 25.0       | 0.54      | 10,000 pcs. | White (WH)  | 533-65005   |
| TLFD48DS-2X25YE  | 5.01              | 2.4             | 25.0       | 0.54      | 10,000 pcs. | Yellow (YE) | 533-65023   |
| TLFD48DS-1X50WH  | 5.01              | 2.4             | 50.0       | 0.54      | 5,000 pcs.  | White (WH)  | 533-65004   |
| TLFD48DS-1X50YE  | 5.01              | 2.4             | 50.0       | 0.54      | 5,000 pcs.  | Yellow (YE) | 533-65022   |
| TLFD64DS-2X25WH  | 6.64              | 3.2             | 25.0       | 0.56      | 6,000 pcs.  | White (WH)  | 533-65007   |
| TLFD64DS-2X25YE  | 6.64              | 3.2             | 25.0       | 0.56      | 6,000 pcs.  | Yellow (YE) | 533-65025   |
| TLFD64DS-1X50WH  | 6.64              | 3.2             | 50.0       | 0.56      | 3,000 pcs.  | White (WH)  | 533-65006   |
| TLFD64DS-1X50YE  | 6.64              | 3.2             | 50.0       | 0.56      | 3,000 pcs.  | Yellow (YE) | 533-65024   |
| TLFD95DS-2X25WH  | 9.88              | 4.8             | 25.0       | 0.59      | 5,000 pcs.  | White (WH)  | 533-65009   |
| TLFD95DS-2X25YE  | 9.88              | 4.8             | 25.0       | 0.59      | 5,000 pcs.  | Yellow (YE) | 533-65027   |
| TLFD95DS-1X50WH  | 9.88              | 4.8             | 50.0       | 0.59      | 2,500 pcs.  | White (WH)  | 533-65008   |
| TLFD95DS-1X50YE  | 9.88              | 4.8             | 50.0       | 0.59      | 2,500 pcs.  | Yellow (YE) | 533-65026   |
| TLFD127DS-2X25WH | 13.14             | 6.4             | 25.0       | 0.60      | 3,000 pcs.  | White (WH)  | 533-65011   |
| TLFD127DS-2X25YE | 13.14             | 6.4             | 25.0       | 0.60      | 3,000 pcs.  | Yellow (YE) | 533-65029   |
| TLFD127DS-1X50WH | 13.14             | 6.4             | 50.0       | 0.60      | 1,500 pcs.  | White (WH)  | 533-65010   |
| TLFD127DS-1X50YE | 13.14             | 6.4             | 50.0       | 0.60      | 1,500 pcs.  | Yellow (YE) | 533-65028   |
| TLFD190DS-2X25WH | 19.70             | 9.6             | 25.0       | 0.62      | 3,000 pcs.  | White (WH)  | 533-65013   |
| TLFD190DS-2X25YE | 19.70             | 9.6             | 25.0       | 0.62      | 3,000 pcs.  | Yellow (YE) | 533-65031   |
| TLFD190DS-1X50WH | 19.70             | 9.6             | 50.0       | 0.62      | 1,500 pcs.  | White (WH)  | 533-65012   |
| TLFD190DS-1X50YE | 19.70             | 9.6             | 50.0       | 0.62      | 1,500 pcs.  | Yellow (YE) | 533-65030   |
| TLFD254DS-2X25WH | 26.25             | 12.7            | 25.0       | 0.63      | 2,000 pcs.  | White (WH)  | 533-65015   |
| TLFD254DS-2X25YE | 26.25             | 12.7            | 25.0       | 0.63      | 2,000 pcs.  | Yellow (YE) | 533-65033   |
| TLFD254DS-1X50WH | 26.25             | 12.7            | 50.0       | 0.63      | 1,000 pcs.  | White (WH)  | 533-65014   |
| TLFD254DS-1X50YE | 26.25             | 12.7            | 50.0       | 0.63      | 1,000 pcs.  | Yellow (YE) | 533-65032   |
| TLFD381DS-2X25WH | 39.29             | 19.1            | 25.0       | 0.64      | 1,000 pcs.  | White (WH)  | 533-65017   |
| TLFD381DS-2X25YE | 39.29             | 19.1            | 25.0       | 0.64      | 1,000 pcs.  | Yellow (YE) | 533-65035   |
| TLFD381DS-1X50WH | 39.29             | 19.1            | 50.0       | 0.64      | 500 pcs.    | White (WH)  | 533-65016   |
| TLFD381DS-1X50YE | 39.29             | 19.1            | 50.0       | 0.64      | 500 pcs.    | Yellow (YE) | 533-65034   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content.

**EN 45545-2**

**EN 50343**

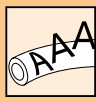
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[www.HT.click/12-49](http://www.HT.click/12-49)





### Identification tags for cable bundle, thermal transfer

#### TIPTAG HF – Rail Limited Fire Hazard, Halogen free

The Tiptag HF cable markers have been designed to identify larger wires and cable bundles not only in the electronics and general cabling environments but also in the railway industry. Tiptag HF is halogen free and its material properties show low smoke propagation, density and toxicity. Tiptags are presented in a special perforated format which include fastening slots for cable ties. They are also suitable for retrofit purposes.

Print from the reel with HellermannTyton's premium range of thermal transfer printers and ribbons for optimum print quality and longevity.

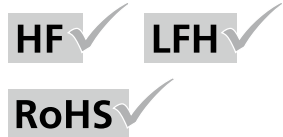
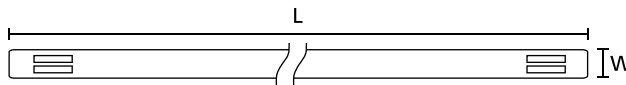
#### Features and benefits

- Ideal for marking larger wire and cable bundles
- Halogen free
- Low smoke propagation and toxicity
- Perforated format that includes fastening slots for cable ties
- Available in various colours



TIPTAG - high performance cable bundle marking.

|                                  |   |
|----------------------------------|---|
| <b>MATERIAL</b>                  | Polyolefin (PO)   |
| <b>Operating Temperature</b>     | -40 °C to +90 °C, (+160 °C, for 200 h)  |
| <b>Flammability</b>              | Limited Fire Hazard, low generation of toxic gases and corrosive acid, low smoke generation, halogen free |
| <b>Recommended Ribbon Type</b>   | TTDTHOUT  |
| <b>Thermal Transfer Printer</b>  | TT431, TT4030   |
| <b>EN 45545-2 Classification</b> | R22 HL3, R23 HL3  |



| TYPE            | Length (L) | Width (W) | Pack Cont. | Colour      | Article-No. |
|-----------------|------------|-----------|------------|-------------|-------------|
| TIPTAG11X65BU   | 65.0       | 11.0      | 190 pcs.   | Blue (BU)   | 556-20066   |
| TIPTAG11X65GN   | 65.0       | 11.0      | 190 pcs.   | Green (GN)  | 556-20065   |
| TIPTAG11X65OG   | 65.0       | 11.0      | 190 pcs.   | Orange (OG) | 556-20063   |
| TIPTAG11X65RD   | 65.0       | 11.0      | 190 pcs.   | Red (RD)    | 556-20062   |
| TIPTAG11X65WH   | 65.0       | 11.0      | 190 pcs.   | White (WH)  | 556-20069   |
| TIPTAG11X65YE   | 65.0       | 11.0      | 190 pcs.   | Yellow (YE) | 556-20064   |
| TIPTAG15X65WH   | 65.0       | 15.0      | 190 pcs.   | White (WH)  | 556-21069   |
| TIPTAG15X65YE   | 65.0       | 15.0      | 190 pcs.   | Yellow (YE) | 556-21064   |
| TIPTAG11X100BU  | 100.0      | 11.0      | 120 pcs.   | Blue (BU)   | 556-20080   |
| TIPTAG11X100RD  | 100.0      | 11.0      | 120 pcs.   | Red (RD)    | 556-20091   |
| TIPTAG11X100WH  | 100.0      | 11.0      | 120 pcs.   | White (WH)  | 556-20079   |
| TIPTAG11X100YE  | 100.0      | 11.0      | 120 pcs.   | Yellow (YE) | 556-20074   |
| TIPTAG15X100RD  | 100.0      | 15.0      | 120 pcs.   | Red (RD)    | 556-21096   |
| TIPTAG15X100WH  | 100.0      | 15.0      | 120 pcs.   | White (WH)  | 556-21079   |
| TIPTAG15X100YE  | 100.0      | 15.0      | 120 pcs.   | Yellow (YE) | 556-21074   |
| TIPTAG11X105RD  | 105.0      | 11.0      | 115 pcs.   | Red (RD)    | 556-20072   |
| TIPTAG15BUX105S | 105.0      | 15.0      | 115 pcs.   | Blue (BU)   | 556-21076   |
| TIPTAG15X105GN  | 105.0      | 15.0      | 115 pcs.   | Green (GN)  | 556-21075   |

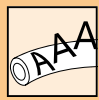
All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.

**EN 45545-2**

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### Identification tags for cable bundle „Ladder Style“, thermal transfer

#### TAGLF – Rail - Limited Fire Hazard Tiptags

TAGLF is a halogen free cable marker for mass transit applications specifically in the railway industry or for all areas where limited fire hazard material is needed. TAGLF's material properties show low smoke propagation, density and toxicity. They are supplied pre-cut and have been formatted into a convenient „ladder“ system. Simply print and press out the required TAGLF and apply with cable ties, they are also suitable for retrofit purposes.

Print with HellermannTyton's premium range of thermal printers and ribbons or a laser beam marking device.

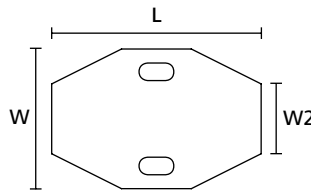
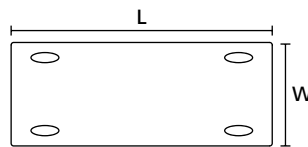


Limited fire hazard cable marker TAGLF.

#### Features and benefits

- Limited fire hazard cable marker
- Halogen free
- For larger cables and wires, bundles
- Thermal transfer or laser beam printable
- Good mechanical strength and highly flexible
- Delivered on reel in convenient storage boxes

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>MATERIAL</b>                  | Polyolefin, cross-linked (PO-X) |
| <b>Operating Temperature</b>     | -40 °C to +105 °C               |
| <b>Flammability</b>              | self-extinguishing              |
| <b>Recommended Ribbon Type</b>   | TTDTHOUT                        |
| <b>Thermal Transfer Printer</b>  | TT431, TT4030                   |
| <b>EN 45545-2 Classification</b> | R22 HL3, R23 HL3                |



Identification tags with either two, four or six fixing holes.

| TYPE         | Drawing | Length (L) | Width (W) | Width (W2) | Pack Cont. | Colour      | Article-No. |
|--------------|---------|------------|-----------|------------|------------|-------------|-------------|
| TAGLF20X51-6 |         | 51.5       | 20.4      | -          | 1,000 pcs. | White (WH)  | 556-83023   |
|              |         | 51.5       | 20.4      | -          | 1,000 pcs. | Yellow (YE) | 556-83024   |
| TAGLF10X51-4 |         | 51.5       | 10.4      | -          | 2,000 pcs. | White (WH)  | 556-83013   |
|              |         | 51.5       | 10.4      | -          | 2,000 pcs. | Yellow (YE) | 556-83014   |
| TAGLF20X51-4 |         | 51.5       | 20.4      | -          | 1,000 pcs. | White (WH)  | 556-83018   |
|              |         | 51.5       | 20.4      | -          | 1,000 pcs. | Yellow (YE) | 556-83019   |
| TAGLF20X30-2 |         | 30.0       | 20.0      | 11.0       | 1,000 pcs. | Blue (BU)   | 556-83054   |
|              |         | 30.0       | 20.0      | 11.0       | 1,000 pcs. | Red (RD)    | 556-83055   |
| TAGLF20x30-2 |         | 30.0       | 20.0      | 11.0       | 1,000 pcs. | White (WH)  | 556-83038   |
|              |         | 30.0       | 20.0      | 11.0       | 1,000 pcs. | Yellow (YE) | 556-83012   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content.

EN 45545-2

ASTM

MIL

SAE

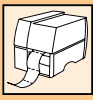
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[www.HT.click/12-51](http://www.HT.click/12-51)





### Thermal transfer printer

#### TrakMark DS, Double Sided

The TrakMark DS is a high-performance printer for double-sided printing. This printer is perfect for double-sided printing on HellermannTyton shrinkable tubing. With two print heads mounted one on top of the other, the TrakMark DS prints onto both sides of the material at the same time. High reliability and multiple peripherals enable applications and solutions tailored to specific customer requirements. It is easy to use thanks to its display and clear status messages which can be shown in multiple languages. 300 dpi resolution ensures that barcodes, warning symbols, logos and text are as sharp as they can be.

#### Features and benefits

- High volume double sided printing
- Prints perfectly on HellermannTyton heat shrink ladder style products
- Uses standard 300 m ribbons
- Barcodes: standard and 2D
- Print speed up to 125 mm/s (30 mm/s recommended for ladder style products and tubing)
- Multiple language selection
- Windows drivers: 32/64 bit for Windows XP, Windows Vista, Windows 7, 8, 10



[www.HellermannTyton.com/TrakMark-rail21](http://www.HellermannTyton.com/TrakMark-rail21)



TrakMark DS printer – for double sided printing.

|                                    |  |
|------------------------------------|--|
| <b>Print Method</b>                | Thermal transfer printing                |
| <b>Print Head Type</b>             | 300 dpi, flat type                       |
| <b>Print Speed</b>                 | 30, 40, 50, 75, 100, 125 mm/s            |
| <b>Max. Print Width</b>            | 105.6 mm                                 |
| <b>Label Height Max (metric)</b>   | 2,000 mm                                 |
| <b>Interfaces</b>                  | RS232 C, USB 2.0, Ethernet 10/100 Base T |
| <b>Supported Barcodes, Printer</b> | Standard, 2D                             |
| <b>Printer Memory</b>              | 64 MB RAM                                |
| <b>Dimensions W x H x D</b>        | 248 mm x 395 mm x 554 mm                 |
| <b>Weight</b>                      | 21.0 kg                                  |



| TYPE        | Article-No. |
|-------------|-------------|
| TrakMark DS | 556-05000   |

Subject to technical changes.

| TYPE                    | Description                              | Article-No. |
|-------------------------|--|-------------|
| S4000 Cutter            | S4000 Cutter for TT4000+ and TrakMark DS | 556-04025   |
| P4000 Perforator        | Perforator for TT4000+ and TrakMark DS   | 556-04024   |
| TT External Reel Holder | External Reel Holder                     | 556-00451   |

Subject to technical changes.



Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.





## Thermal printer ribbons for

### Heatshrink and Tiptags

The thermal transfer print technology is based on heating up certain dots in the print head. This transfers the ink very precisely from the ribbon onto the surface of the printed material. All HellermannTyton ribbons consist of a special resin composition to maximise print performance. In combination with HellermannTyton printers the ribbons ensure the highest of print quality on all HellermannTyton thermal printable identification materials.

### Features and benefits

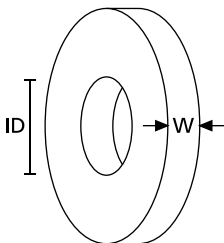
- Thermal transfer ribbons for high quality print results on heat shrink tubing and Tiptag identification tags
- Ribbons are specifically designed to maximize print performance for the recommended material



Ribbons for printing on tubes and Tiptags.



**ID: The standard inside core diameter is 25.4 mm.**



| TYPE                   | Recommended Material       | Colour      | Width (W) | Reel Length | Article-No. |
|------------------------|----------------------------|-------------|-----------|-------------|-------------|
| <b>TT822OUT8 110MM</b> | TCGT/TULT                  | Silver (SR) | 110.0     | 300 m       | 556-00161   |
| <b>TTDTHOUT 40MM</b>   | TCGT/TULT/TLFX/TLFD/TIPTAG | Black (BK)  | 40.0      | 300 m       | 556-00139   |
| <b>TTDTHOUT 60MM</b>   | TCGT/TULT/TLFX/TLFD/TIPTAG | Black (BK)  | 60.0      | 300 m       | 556-00140   |
| <b>TTDTHOUT 100MM</b>  | TCGT/TULT/TLFX/TLFD/TIPTAG | Black (BK)  | 100.0     | 300 m       | 556-00141   |
| <b>TTRC+ 30MM</b>      | TIPTAG PU/TAGPU            | Black (BK)  | 30.0      | 300 m       | 556-00114   |
| <b>TTRC+ 60MM</b>      | TIPTAG PU/TAGPU            | Black (BK)  | 60.0      | 300 m       | 556-00115   |
| <b>TTRC+ 100MM</b>     | TIPTAG PU/TAGPU            | Black (BK)  | 100.0     | 300 m       | 556-00103   |

All dimensions in mm. Subject to technical changes.



Add items to your watchlist!

[www.HT.click/12-53](http://www.HT.click/12-53)



# Even big things have small beginnings.

You have to work with what you've got – and that was exactly what our company founder Paul Hellermann did back in 1935. Inspired by the small rubber tube in bicycle valves, he developed a process for binding electric cables with rubber: the Hellermann grommet and three-pronged pliers. The first two of the hundreds of patents filed since then.

[www.HellermannTyton.com/MFR-rail](http://www.HellermannTyton.com/MFR-rail)

**MADE FOR REAL** 







### Manual tensioning tool plastic housing

#### EVO7 up to 4.8 mm strap width

HellermannTyton's EVO7 mechanical hand tool was ergonomically designed to reduce the risks of repetitive stress injuries to operators while concurrently increasing productivity. The EVO7 Tension/Lock/Cut Technology delivers performance, safety and comfort for the operators. Available in a standard grip span (EVO7) or short grip span (EVO7SP), for smaller hands. Additional accessories are available.

#### Features and benefits

- Ergonomic, slip-proof handle for a comfortable and secure grip
- Extremely low-maintenance
- Fast and precise application with minimum effort (TLC mechanism)
- Convenient and simple tension adjustment
- Extended, slim nose for use in narrow spaces
- Housing made of resilient and lightweight glass fibre-reinforced polyester
- Standard grip span (90 mm) and short grip span (80 mm) available



The EVO7: Maximum performance with minimum effort.



[www.HellermannTyton.com/EVO7-rail21](http://www.HellermannTyton.com/EVO7-rail21)

| TYPE              | Description | Strap Width max. | Strap Thickness max. | Weight   | Article-No. |
|-------------------|-------------|------------------|----------------------|----------|-------------|
| EVO7              | EVO7        | 4.8              | 1.5                  | 0.275 kg | 110-70129   |
| EVO7SP            | EVO7SP      | 4.8              | 1.5                  | 0.272 kg | 110-70130   |
| SP EVO7 Blade Kit | Blade-Kit   | -                | -                    | 0.002 kg | 110-70106   |

All dimensions in mm. Subject to technical changes.

### Manual tensioning tool plastic housing

#### EVO9 up to 13.5 mm strap width

The EVO9 is available in a standard grip span 90 mm (EVO9) or short grip span 80 mm (EVO9SP), for smaller hands. Both tools perform between 53 N and 307 N. The EVO9HT (high tension) was designed to apply HellermannTyton cable ties from 120 N until 516 N with a maximum width of 13.5 mm.

#### Features and benefits

- Standard grip span (90 mm) and short grip span (80 mm) available
- Ergonomic, slip-proof handle for a comfortable and secure grip
- Extremely low-maintenance
- Fast and precise application with minimum effort (TLC-technology)
- Convenient and simple tension adjustment
- Integrated 3 position quick adjustment override (EVO9/EVO9SP/EVO9HT)
- Housing made of resilient and lightweight glass fibre-reinforced polyester



The EVO9 with TLC technology.

| TYPE          | Description | Strap Width max. | Strap Thickness max. | Weight   | Article-No. |
|---------------|-------------|------------------|----------------------|----------|-------------|
| EVO9          | EVO9        | 13.5             | 2.0                  | 0.357 kg | 110-80002   |
| EVO9SP        | EVO9SP      | 13.5             | 2.0                  | 0.361 kg | 110-80003   |
| EVO9HT        | EVO9HT      | 13.5             | 2.0                  | 0.364 kg | 110-80017   |
| SP EVO9 Blade | EVO9 Blade  | -                | -                    | 0.002 kg | 110-80037   |

All dimensions in mm. Subject to technical changes.





### Manual tensioning tool for KR-Series

#### KR6/8

Application tool KR6/8 crimps the glass-fibre-reinforced locking pin of the KR seal and leads to plastic deformation of the tie ends. This produces a very proof permanent connection. In combination with KR cable ties this system offers high vibration resistance. One reason for customers in the railway and automotive industry to take this system as a preferred solution.

#### Features and benefits

- Tough metal tool for applying KR cable ties only
- For tensioning, fixing and cutting KR cable ties
- Simply change the front plate to apply 6 mm or 8 mm straps



The manual tensioning tool KR6/8 for KR-Series cable ties.

| TYPE                       | Description       | Article-No. |
|----------------------------|-------------------|-------------|
| KR6/8                      | KR6/8             | 121-00680   |
| SP KR6/8 replacement blade | Replacement blade | 122-68019   |

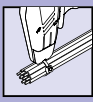
All dimensions in mm. Subject to technical changes.



Add items to your watchlist!

[www.HT.click/12-57](http://www.HT.click/12-57)





# Application Tooling

## Application Tooling for Cutting Plastic Ties

### Manual cutting tool for plastic ties

#### EVO cut

The EVO cut is a cutting tool for plastic ties, which ensures the cut of the strap while preserving wires and harnesses from being damaged.

This applies to flexible cables, bundles and lines as well as rigid bundled goods. Its use is recommended in many applications for which wires and harnesses have a high value added. Especially for sensitive cable harnesses the use of the EVO cut is recommended.

The cutting tool is made of a lightweight plastic housing and an ergonomic, non-slip handle for a comfortable and secure grip.

The tool includes three interchangeable nosepieces for plastic cable ties of varying widths and thicknesses.

#### Features and benefits

- Cutting tool for plastic ties
- Tie can be cut off at any part of the strap
- Ensures the cable isolation from being damaged
- Light-weighting plastic housing, ergonomic design
- Single-handed operation
- Includes three interchangeable nosepieces for respective cable tie width and thickness



EVO cut – Cutting tool for plastic ties.



Tie can be cut off at any part of the strap.



[www.HellermannTyton.com/EVOcut-rail21](http://www.HellermannTyton.com/EVOcut-rail21)



Single-handed operation.

| TYPE   | Description | Strap Width max. | Strap Thickness max. | Weight  | Article-No. |
|--------|-------------|------------------|----------------------|---------|-------------|
| EVOcut | EVO cut     | 7.8              | 1.8                  | 0.14 kg | 110-05005   |

All dimensions in mm. Subject to technical changes.





### Cordless Heat Gun - Gas powered

#### CHG900

The HellermannTyton CHG900 Cordless Heat Gun is powered by P445 gas cartridges, providing autonomous working of 90 minutes in one go. The tool is designed to produce flameless heat which makes it the ideal hot-air gun to apply a huge variety of heat shrink tubing and heat shrink wire markers as well as molded shapes or heat shrink boots, transition shapes, end caps and cable repair sleeves especially in harsh outdoor conditions covering freezing temperatures as low as -8 °C.

#### Features and benefits

- Cordless heat gun powered by P445 gas cartridges
- Flameless heat - no direct flame outlet
- 90 min autonomy per cartridge
- Qualified for harsh outdoor conditions (-8 °C)
- Lightweight 440 g tool (555 g incl. cartridge)
- Hands-free operation due to integrated standing pod
- Quick start piezo ignition
- Instant turnaround due to antflare feature
- Precise gas flow adjustment
- Ergonomic rugged design
- Quick gas cartridge exchange
- Tool-free maintenance



HellermannTyton Cordless Heat Gun Kit - CHG900.



Gas Nozzle for CHG900 Heat Gun.



Piezo Ignition Trigger for CHG900 Heat Gun.



[www.HellermannTyton.com/CHG900-rail21](http://www.HellermannTyton.com/CHG900-rail21)

| TYPE         | Description  | Article-No. |
|--------------|--|-------------|
| CHG900       | Cordless Heat Gun - CHG900 Set incl. P445 Gas Cartridge and 2 nozzles. | 391-90010   |
| Piezo CHG900 | CHG900 Spare Part - Piezo Ignition Trigger.                            | 391-90011   |
| Gas Nozzle   | CHG900 Spare Part - Gas Nozzle.  | 391-90012   |
| P445         | P445 Gas Cartridge (Butane, Propane, Propene).                         | 391-90101   |

Subject to technical changes.



Add items to your watchlist!

[www.HT.click/12-59](http://www.HT.click/12-59)





### Electrical Hot Air Tool

#### H6100

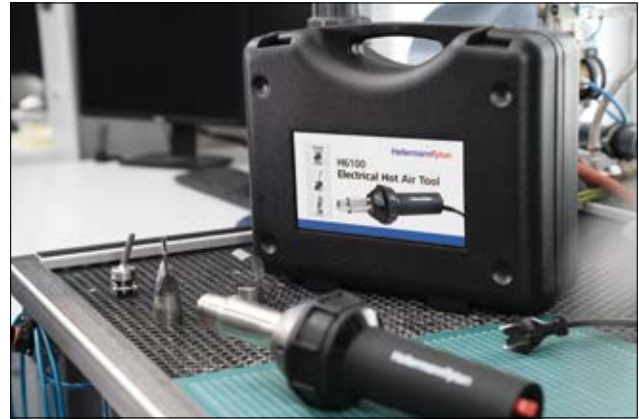
H6100 Electrical Hot Air Tool is designed for shrinking thin to medium wall heat shrink tubing, end caps and molded shapes.

#### Features and benefits

- Ergonomic and light weight hand tool
- Fatigue-free working due to low weight less than 1 kg
- Powerful 1600 W motor
- Non-slip rubber ring for safe work bench application
- Infinitely variable temperature setting up to +700 °C
- Ceramic heating element
- Integrated easy to clean air filter
- Heavy duty H07RN-F power cord
- Sturdy tool case incl. 3 push-on nozzles for precise heat shrink applications



H6100 Electrical Hot Air Gun.



H6100 comes in carrying case incl. push-on nozzles.



Adjusting H6100 operation temperature.

| TYPE  | Air Flow<br>l/min | Operating<br>Temperature | Standby Temp.<br>°C | Wattage | Operational<br>Voltage | Weight  | Article-No. |
|-------|-------------------|--------------------------|---------------------|---------|------------------------|---------|-------------|
| H6100 | 240 l/min         | +40 °C to +700 °C        | 40 °C               | 1,600 W | 230 V                  | 0.99 kg | 391-00110   |

Subject to technical changes.





### Hot cutting tool

#### HSG0

The HSG0 hand tool is used to cut braided sleeving cleanly and without fraying.

#### Features and benefits

- Light and sturdy
- Heats up quickly with the press of button and cuts in seconds
- The yarn melts and fuses together
- No fraying of the sleeving



[www.HellermannTyton.com/HSG0-rail21](http://www.HellermannTyton.com/HSG0-rail21)



*The HSG0 hot cutting tool prevents the braided sleeving from fraying.*

| TYPE | Description      | Weight  | Colour    | Article-No. |
|------|------------------|---------|-----------|-------------|
| HSG0 | Hot cutting tool | 1.15 kg | Blue (BU) | 170-99001   |

Subject to technical changes.



Add items to your watchlist!

[www.HT.click/12-61](http://www.HT.click/12-61)



# Giving your cable routing the decisive edge – today and tomorrow!

EdgeClips are ideal for securing wiring when holes or adhesive mounts are not an option but you have an available edge. Customisation of this highly versatile part to specific requirements is not a problem – it's part of our daily business.

[www.HellermannTyton.com/20years-EdgeClips](http://www.HellermannTyton.com/20years-EdgeClips)

**MADE FOR REAL** 

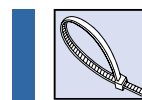




## Our product range for railway infrastructure

We offer a wide range of solutions to help you create or maintain the railway infrastructure. We adapt your needs and supply products that conform to your requirements. Whether you need to identify cables in a metro station or under extreme conditions outdoors, we can supply you with the solution that fits. Halogen free, flame retardant, low or high temperature, plastic or metal, we will be more than happy to help you select the right product for your application.

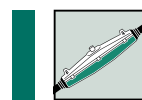
## Our products for Infrastructure



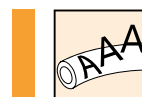
Cable Ties and Fixings  
**Page 64**



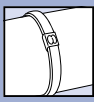
Insulation  
**Page 69**



Electrical Installation  
**Page 71**



Identification Systems  
**Page 78**



# Cable Ties and Fixings

## Cable ties, stainless steel

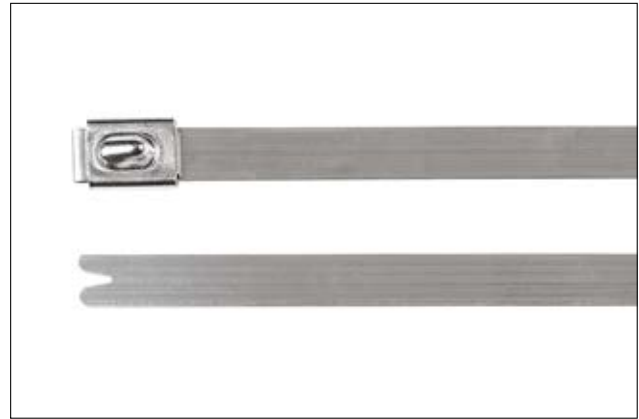
### Cable ties with ball-lock

#### MBT-Series, stainless steel 304

Metal ties are ideal for all applications that require high strength, reliability and fire resistance. The MBT range of stainless steel cable ties can be used in chemical industries and on oil platforms as well as in mass transit, shipbuilding and mining industries. MBT ties are also suitable for machine building, construction and in the outside area of radio technology. Additionally MBT ties are ideal for securing lighting in theatres and exhibition halls.

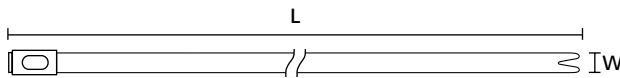
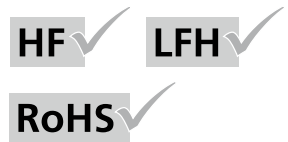
#### Features and benefits

- Cable ties MBT, made from stainless steel 304
- Non-releasable locking feature
- Corrosion resistant
- Weather resistant
- Outstanding chemical resistance
- High temperature resistant
- Non-burning

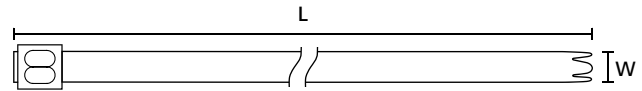


Stainless steel cable ties, uncoated, MBT\_SS, MBT\_HS.

|                              |                         |
|------------------------------|-------------------------|
| <b>MATERIAL</b>              | Stainless Steel (SS304) |
| <b>Operating Temperature</b> | -80 °C to +538 °C       |
| <b>Flammability</b>          | non-burning             |



MBT-Series 4.6 mm and 7.9 mm width



MBT-Series 12.3 mm width

| TYPE    | Width (W) | Length (L) | Bundle Ø min. | Bundle Ø max. | N     | Material | Pack Cont. | Tools | Article-No. |
|---------|-----------|------------|---------------|---------------|-------|----------|------------|-------|-------------|
| MBT5SS  | 4.6       | 127.0      | 12.0          | 25.0          | 900   | SS304    | 100 pcs.   | 15-18 | 111-93058   |
| MBT8SS  | 4.6       | 201.0      | 17.0          | 50.0          | 900   | SS304    | 100 pcs.   | 15-18 | 111-93088   |
| MBT14SS | 4.6       | 362.0      | 17.0          | 102.0         | 900   | SS304    | 100 pcs.   | 15-18 | 111-93148   |
| MBT20SS | 4.6       | 521.0      | 17.0          | 152.0         | 900   | SS304    | 100 pcs.   | 15-18 | 111-93208   |
| MBT14HS | 7.9       | 362.0      | 17.0          | 102.0         | 2,000 | SS304    | 50 pcs.    | 15-18 | 111-94148   |
| MBT20HS | 7.9       | 521.0      | 17.0          | 152.0         | 2,000 | SS304    | 50 pcs.    | 15-18 | 111-94208   |
| MBT33HS | 7.9       | 838.0      | 17.0          | 254.0         | 2,000 | SS304    | 50 pcs.    | 15-18 | 111-94338   |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

| Recommended Tools |         |       |            |
|-------------------|---------|-------|------------|
| 15                | 16      | 17    | 18         |
| MK9SST            | MK9PSST | HDT16 | KST-STG200 |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.





## Cable ties with ball-lock

### MBT-Series, stainless steel 316

Metal ties are predestined for all areas with requirements for high holding force, reliability and fire resistance. The MBT range of stainless steel cable ties can be used in chemical industry and on oil platform as well as in mass transit, shipbuilding and mining industry. MBT ties are also suitable for machine building, apparatus construction and in the outside area of radio technology. Additionally MBT ties are a good solution to fix lighting in theatres and exhibition halls.

#### Features and benefits

- MBT cable ties made from stainless steel 316
- Non-releasable locking feature
- Corrosion resistant
- Weather resistant
- Outstanding chemical resistance
- High temperature resistant
- Non-burning



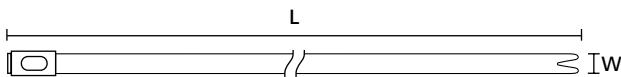
Stainless steel cable ties, uncoated, MBT\_S, MBT\_H.

|                              |                         |
|------------------------------|-------------------------|
| <b>MATERIAL</b>              | Stainless Steel (SS316) |
| <b>Operating Temperature</b> | -80 °C to +538 °C       |
| <b>Flammability</b>          | non-burning             |

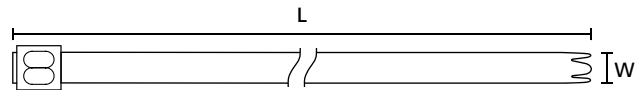
HF ✓

LFH ✓

RoHS ✓



MBT-Series 4.6 mm and 7.9 mm width



MBT-Series 12.3 mm width

| TYPE    | Width (W) | Length (L) | Bundle Ø min. | Bundle Ø max. | N     | Material | Pack Cont. | Tools | Article-No. |
|---------|-----------|------------|---------------|---------------|-------|----------|------------|-------|-------------|
| MBT5S   | 4.6       | 127.0      | 12.0          | 25.0          | 900   | SS316    | 100 pcs.   | 15-18 | 111-93059   |
| MBT8S   | 4.6       | 201.0      | 12.0          | 50.0          | 900   | SS316    | 100 pcs.   | 15-18 | 111-93089   |
| MBT14S  | 4.6       | 362.0      | 12.0          | 102.0         | 900   | SS316    | 100 pcs.   | 15-18 | 111-93149   |
| MBT20S  | 4.6       | 521.0      | 12.0          | 152.0         | 900   | SS316    | 100 pcs.   | 15-18 | 111-93209   |
| MBT14H  | 7.9       | 362.0      | 12.0          | 102.0         | 2,000 | SS316    | 50 pcs.    | 15-18 | 111-94149   |
| MBT20H  | 7.9       | 521.0      | 12.0          | 152.0         | 2,000 | SS316    | 50 pcs.    | 15-18 | 111-94209   |
| MBT27H  | 7.9       | 685.0      | 12.0          | 203.0         | 2,000 | SS316    | 50 pcs.    | 15-18 | 111-94279   |
| MBT33H  | 7.9       | 838.0      | 12.0          | 254.0         | 2,000 | SS316    | 50 pcs.    | 15-18 | 111-94339   |
| MBT14XH | 12.3      | 362.0      | 12.0          | 102.0         | 2,700 | SS316    | 50 pcs.    | 15-18 | 111-95149   |

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

| Recommended Tools |         |       |            |
|-------------------|---------|-------|------------|
| 15                | 16      | 17    | 18         |
| MK9SST            | MK9PSST | HDT16 | KST-STG200 |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.



Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.



Add items to your watchlist!

[www.HT.click/12-65](http://www.HT.click/12-65)





# Cable Ties and Fixings

## Cable ties, stainless steel

Infrastructure

### Cable ties with ball-lock and coating

#### MBT-FC-Series, stainless steel 316

The MBT range of stainless steel cable ties can be used in the most arduous of conditions or where the additional security, strength and fire resistance of a metal fixing is required. Used in all industries from mass transit, ship building, oil rigs, mining and chemical industry, theatres and exhibition halls. In the event of a fire, cables will remain securely held in place and will not fall to block emergency exits. Fully coated ties can also be used to avoid any reflection. An important consideration for instance in the defence industry.

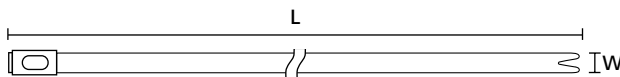
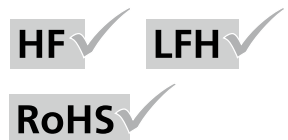
#### Features and benefits

- Fully coated MBT, made from type 316 stainless steel with polyester coating
- Non-releasable locking feature
- Coated cable tie with smooth edges
- Comfortable handling and installation
- Eliminates contact corrosion between dissimilar materials during application

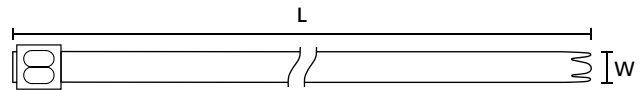


Stainless steel cable ties, coated, MBT\_SFC, MBT\_HFC.

|                                      |   |
|--------------------------------------|---|
| <b>MATERIAL</b>                      | Polyester (SP), Stainless Steel (SS316) |
| <b>Operating Temperature</b>         | -80 °C to +538 °C                       |
| <b>Operating Temperature Coating</b> | -50 °C to +150 °C                       |
| <b>Flammability</b>                  | non-burning (except coating)            |



MBT-Series 4.6 mm and 7.9 mm width



MBT-Series 12.3 mm width

| TYPE     | Width (W) | Length (L) | Bundle Ø min. | Bundle Ø max. | N     | Material  | Pack Cont. | Tools | Article-No. |
|----------|-----------|------------|---------------|---------------|-------|-----------|------------|-------|-------------|
| MBT5SFC  | 4.6       | 127.0      | 15.0          | 25.0          | 540   | SP, SS316 | 100 pcs.   | 15-18 | 111-00288   |
| MBT8SFC  | 4.6       | 201.0      | 17.0          | 50.0          | 540   | SP, SS316 | 100 pcs.   | 15-18 | 111-00289   |
| MBT14SFC | 4.6       | 362.0      | 17.0          | 102.0         | 540   | SP, SS316 | 100 pcs.   | 15-18 | 111-00290   |
| MBT20SFC | 4.6       | 521.0      | 17.0          | 152.0         | 540   | SP, SS316 | 100 pcs.   | 15-18 | 111-00291   |
| MBT8HFC  | 7.9       | 201.0      | 17.0          | 50.0          | 1,020 | SP, SS316 | 50 pcs.    | 15-18 | 111-00294   |
| MBT14HFC | 7.9       | 362.0      | 17.0          | 102.0         | 1,020 | SP, SS316 | 50 pcs.    | 15-18 | 111-00295   |
| MBT20HFC | 7.9       | 521.0      | 17.0          | 152.0         | 1,020 | SP, SS316 | 50 pcs.    | 15-18 | 111-00296   |
| MBT27HFC | 7.9       | 681.0      | 17.0          | 203.0         | 1,020 | SP, SS316 | 50 pcs.    | 15-18 | 111-00297   |
| MBT33HFC | 7.9       | 838.0      | 17.0          | 254.0         | 1,020 | SP, SS316 | 50 pcs.    | 15-18 | 111-00298   |

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

| Recommended Tools |         |       |            |
|-------------------|---------|-------|------------|
| 15                | 16      | 17    | 18         |
| MK9SST            | MK9PSST | HDT16 | KST-STG200 |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.





## Protective channel for stainless steel ties

### LFPC-Series

When used in conjunction with the MBT, MST, MLT and AMT range of stainless steel cable ties this channel gives the cable protection against chafing, vibration and shock. Ideal for use in arduous conditions such as those found on board ships, oil rigs or in nuclear power stations.

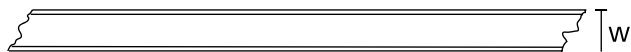
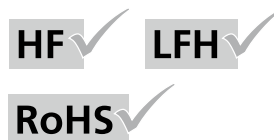
#### Features and benefits

- LFPC channel, manufactured from Polyolefin
- Works with MBT-, MST-, MLT- and AMT-Series
- Smooth surface protects bundle against chafing caused by vibrations and shocks
- Can be cut from roll to any length
- Halogenfree
- Flame retardant



Protective channel LFPC, polyolefin, black.

|                              |  |
|------------------------------|--|
| <b>MATERIAL</b>              | Polyolefin (PO)                        |
| <b>Colour</b>                | Black (BK)                             |
| <b>Operating Temperature</b> | -40 °C to +90 °C, (+160 °C, for 200 h) |
| <b>Flammability</b>          | UL 94 V0                               |



LFPC

| TYPE    | Width (W) | For Ties | Material | Pack Cont. | Article-No. |
|---------|-----------|----------|----------|------------|-------------|
| LFPC70  | 7.0       | MBTS     | PO       | 25 m       | 111-93000   |
| LFPC83  | 8.3       | MBTH     | PO       | 25 m       | 111-00257   |
| LFPC103 | 10.3      | MBTH     | PO       | 25 m       | 111-94000   |
| LFPC129 | 12.9      | MBTXH    | PO       | 25 m       | 111-00253   |
| LFPC132 | 13.2      | MBTXH    | PO       | 25 m       | 111-00254   |
| LFPC150 | 15.0      | MBTXH    | PO       | 25 m       | 111-95000   |

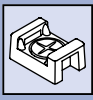
All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Add items to your watchlist!

[www.HT.click/12-67](http://www.HT.click/12-67)





# Cable Ties and Fixings

Fixing products for screws

## Screw fixing mounts

### Stainless steel 316 mounts

Suitable for the secure fixing of cables, tubing, conduits and pipes within the most arduous of environments. Providing a complete fastening and fixing solution when used in conjunction with stainless steel ties up to 10.0 mm width. SSPC metal cable tie mounts are ideal for use within shipbuilding, oil and gas (offshore), industrial machinery and vehicles, food and beverage, power, renewable energy or process industries.

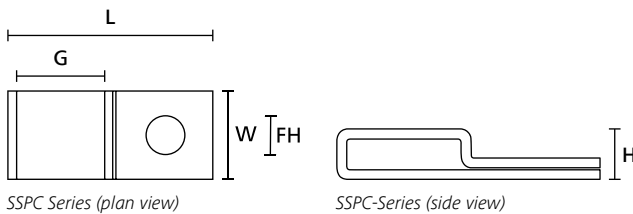
#### Features and benefits

- 2-way fixing for metal cable ties
- High performance stainless steel 316 material
- Heavy duty design
- Robust and durable solution
- Resistant to a range of chemicals in challenging environments
- Quick and easy to install
- Safe and secure solution for cables, tubing, conduits and pipes



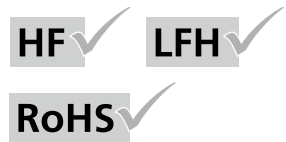
Stainless Steel P-Mount SSPC for use in arduous environments.

|                              |                         |
|------------------------------|-------------------------|
| <b>MATERIAL</b>              | Stainless Steel (SS316) |
| <b>Operating Temperature</b> | -80 °C to +538 °C       |
| <b>Flammability</b>          | non-burning             |



SSPC Series (plan view)

SSPC-Series (side view)



| TYPE  | Width (W) | Length (L) | Height (H) | Hole Ø (FH) | Strap Width max. (G) | Material | Colour     | Pack Cont. | Article-No. |
|-------|-----------|------------|------------|-------------|----------------------|----------|------------|------------|-------------|
| SSPC4 | 10.2      | 23.0       | 4.5        | 4,2         | 10.0                 | SS316    | Metal (ML) | 100 pcs.   | 151-00837   |
| SSPC5 | 10.2      | 23.0       | 4.5        | 5,3         | 10.0                 | SS316    | Metal (ML) | 100 pcs.   | 151-00838   |
| SSPC6 | 10.2      | 23.0       | 4.5        | 6,3         | 10.0                 | SS316    | Metal (ML) | 100 pcs.   | 151-00839   |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

## Manual tensioning tool for metal ties MBT-Series

### MK9SST up to 16.0 mm strap width

The MK9SST is constructed with heavy duty parts to ensure optimum performance. It is designed to apply our MBT cable ties with a strap width of up to 16 mm. The tool is ideally suited for use in most arduous environments such as found on board ships, oil rigs, constructions or in nuclear power stations.

#### Features and benefits

- Glass-fibre-reinforced housing
- Ergonomic design
- Consistent tensioning and automatic cutting of metal ties MBT-Series
- Infinitely adjustable tension force combined with two-step quick adjustment



MK9SST.

| TYPE                        | Description       | Strap Width max. | Strap Thickness max. | Weight   | Article-No. |
|-----------------------------|-------------------|------------------|----------------------|----------|-------------|
| MK9SST                      | MK9SST            | 16.0             | 0.5                  | 0.508 kg | 110-95000   |
| SP MK9SST replacement blade | Replacement Blade | -                | -                    | 0.004 kg | 110-95273   |

All dimensions in mm. Subject to technical changes.





### Heat shrinkable straight-through joint with mechanical connectors

#### LVK-C - adhesive lined

LVK-C is a heat shrinkable straight-through joint for universal connecting of unarmoured polymeric cables or conductors insulated with PVC, PE and XLPE. With mechanical connectors for aluminium or copper cables. Voltage level 0.6/1.0 (1.2) kV.

#### Features and benefits

- Universally suitable to connect cables and conductors
- Immediately ready for use
- Using a high-quality thermoplastic inner adhesive
- Good corrosion protection properties with excellent abrasion resistance and weather resistance
- TCP (thermo chromatic paint) spots indicate the sleeve has been sufficiently heated
- Resistant to chemical agents and alkaline earths
- Excellent shrink behavior
- High UV resistance
- With mechanical connectors
- Halogen free

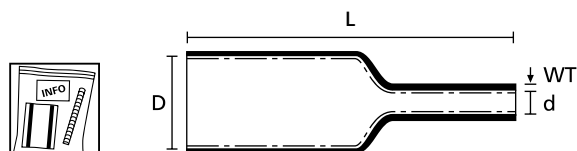
#### Content of Set / Kit

Outer sleeve, inner sleeves, mechanical connectors, cleaning cloth, emery cloth, installation instructions



LVK-C - Heat shrinkable straight-through joint with connectors.

|  |                                 |
|--|---------------------------------|
| <b>MATERIAL</b>                            | Polyolefin, cross-linked (PO-X) |
| <b>Colour</b>                              | Black (BK)                      |
| <b>Shrink Ratio</b>                        | up to 4:1                       |
| <b>Operating Temperature</b>               | -55 °C to +110 °C               |
| <b>Min. Shrink Temperature</b>             | +120 °C                         |
| <b>Softening Point Adhesive</b>            | +105 °C                         |
| <b>Longitudinal Change After Shrinkage</b> | -10 % max.                      |
| <b>Dielectric Strength</b>                 | 20 kV/mm                        |



Heat Shrinkable Tubing 4:1 with adhesive

**i** LVK without connectors!

| TYPE           | No. of Inner sleeves | Conductor Size Range mm <sup>2</sup> | Inner Tubing Supplied Ø D min. | Inner Tubing Recov. Ø d max. | Inner Tubing Length (L) | Outer Tubing Supplied Ø D min. | Outer Tubing Recov. Ø d max. | Outer Tubing Length (L) | Article-No. |
|----------------|----------------------|--------------------------------------|--------------------------------|------------------------------|-------------------------|--------------------------------|------------------------------|-------------------------|-------------|
| LVK-4x16-50    | 4                    | 16-50                                | 22.0                           | 6.0                          | 170.0                   | 55.0                           | 16.0                         | 550.0                   | 380-04008   |
| LVK-C-4x16-50  | 4                    | 16-50                                | 22.0                           | 6.0                          | 170.0                   | 55.0                           | 16.0                         | 550.0                   | 380-04016   |
| LVK-4x25-150   | 4                    | 25-150                               | 33.0                           | 8.0                          | 250.0                   | 105.0                          | 25.0                         | 800.0                   | 380-04010   |
| LVK-C-4x25-150 | 4                    | 25-150                               | 33.0                           | 8.0                          | 250.0                   | 105.0                          | 25.0                         | 800.0                   | 380-04018   |
| LVK-4x25-95    | 4                    | 25-95                                | 33.0                           | 8.0                          | 250.0                   | 75.0                           | 20.0                         | 800.0                   | 380-04009   |
| LVK-C-4x25-95  | 4                    | 25-95                                | 33.0                           | 8.0                          | 250.0                   | 75.0                           | 20.0                         | 800.0                   | 380-04017   |
| LVK-4x95-300   | 4                    | 95-300                               | 40.0                           | 12.0                         | 280.0                   | 130.0                          | 35.0                         | 900.0                   | 380-04011   |
| LVK-5x1.5-16   | 5                    | 1,5-16                               | 19.0                           | 3.2                          | 125.0                   | 48.0                           | 12.0                         | 450.0                   | 380-04006   |
| LVK-C-5x1.5-16 | 5                    | 1,5-16                               | 19.0                           | 3.2                          | 125.0                   | 48.0                           | 12.0                         | 450.0                   | 380-04014   |
| LVK-5x1.5-6    | 5                    | 1,5-6                                | 12.0                           | 3.0                          | 70.0                    | 48.0                           | 12.0                         | 250.0                   | 380-04005   |
| LVK-C-5x1.5-6  | 5                    | 1,5-6                                | 12.0                           | 3.0                          | 70.0                    | 48.0                           | 12.0                         | 250.0                   | 380-04013   |
| LVK-5x6-25     | 5                    | 6-25                                 | 22.0                           | 6.0                          | 125.0                   | 55.0                           | 16.0                         | 500.0                   | 380-04007   |
| LVK-C-5x6-25   | 5                    | 6-25                                 | 22.0                           | 6.0                          | 125.0                   | 55.0                           | 16.0                         | 500.0                   | 380-04015   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content.



Add items to your watchlist!

[www.HT.click/12-69](http://www.HT.click/12-69)





### Heat shrinkable cable repair sleeves

#### RMS

RMS wrap-around sleeves are closed with a steel channel. The sleeve is adhesive lined and will effectively seal the cable after shrinkage. RMS sleeves provide fast, watertight and reliable insulation.

#### Features and benefits

- Fast, moisture proof and permanent repair of cable jackets
- Only 6 sizes for a wide range of cable diameters: from 15 mm up to 160 mm
- Available in 4 standard lengths and also in custom lengths on request
- Each RMS kit is ready for use and comes with instruction sheet, abrasive strip and cleaning sachet
- The metal closure is made of 316 stainless steel for high overall corrosion resistance
- Weather resistant and halogen free
- TCP (thermo chromatic paint) spots indicate the sleeve has been sufficiently heated

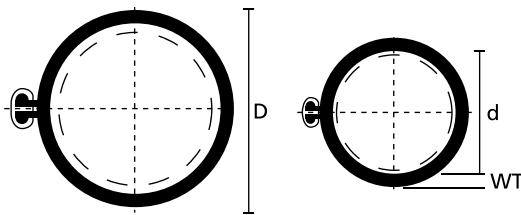


RMS wrap-around sleeves for rapid and secure cable repair.

|  |  |
|--|--|
| <b>MATERIAL</b>                            | Polyolefin, chemically cross-linked (PO-X) |
| <b>Shrink Ratio</b>                        | up to 4.5:1                                |
| <b>Operating Temperature</b>               | -40 °C to +120 °C                          |
| <b>Min. Shrink Temperature</b>             | +110 °C                                    |
| <b>Softening Point Adhesive</b>            | +105 °C                                    |
| <b>Longitudinal Change After Shrinkage</b> | -10 % max.                                 |
| <b>Dielectric Strength</b>                 | 30 kV/mm                                   |
| <b>Flammability</b>                        | not flame-retardant                        |



[www.HellermannTyton.com/RMS-rail21](http://www.HellermannTyton.com/RMS-rail21)



Cable Repair Sleeve RMS with adhesive



| TYPE              | Supplied Ø D min. | Recov. Ø d max. | Wall (WT) | Suitable for Cable Ø from/to | Length (L) | Colour     | Tools | Article-No. |
|-------------------|-------------------|-----------------|-----------|------------------------------|------------|------------|-------|-------------|
| <b>RMS 43-10</b>  | 43.0              | 10.0            | 2.30      | 15 - 35                      | 250.0      | Black (BK) | 32    | 450-20000   |
|                   | 43.0              | 10.0            | 2.30      | 15 - 35                      | 500.0      | Black (BK) | 32    | 450-20001   |
|                   | 43.0              | 10.0            | 2.30      | 15 - 35                      | 750.0      | Black (BK) | 32    | 450-20004   |
|                   | 43.0              | 10.0            | 2.30      | 15 - 35                      | 1,000.0    | Black (BK) | 32    | 450-20002   |
| <b>RMS 52-15</b>  | 52.0              | 15.0            | 2.30      | 20 - 45                      | 250.0      | Black (BK) | 32    | 450-20010   |
|                   | 52.0              | 15.0            | 2.30      | 20 - 45                      | 500.0      | Black (BK) | 32    | 450-20011   |
|                   | 52.0              | 15.0            | 2.30      | 20 - 45                      | 750.0      | Black (BK) | 32    | 450-20014   |
|                   | 52.0              | 15.0            | 2.30      | 20 - 45                      | 1,000.0    | Black (BK) | 32    | 450-20012   |
| <b>RMS 76-22</b>  | 76.0              | 22.0            | 2.50      | 28 - 65                      | 500.0      | Black (BK) | 32    | 450-20021   |
|                   | 76.0              | 22.0            | 2.50      | 28 - 65                      | 750.0      | Black (BK) | 32    | 450-20024   |
|                   | 76.0              | 22.0            | 2.50      | 28 - 65                      | 1,000.0    | Black (BK) | 32    | 450-20022   |
| <b>RMS 100-30</b> | 100.0             | 30.0            | 2.54      | 35 - 85                      | 500.0      | Black (BK) | 32    | 450-20030   |
|                   | 100.0             | 30.0            | 2.54      | 35 - 85                      | 1,000.0    | Black (BK) | 32    | 450-20031   |
| <b>RMS 139-38</b> | 139.0             | 38.0            | 2.77      | 45 - 120                     | 1,000.0    | Black (BK) | 32    | 450-20041   |
| <b>RMS 185-55</b> | 185.0             | 55.0            | 2.74      | 65 - 160                     | 1,000.0    | Black (BK) | 32    | 450-20050   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content.





### Straight-through cable joints without connectors

#### RELICON i-Line SF with PUR 33

RELICON straight-through joints are made for installations in low-voltage electrical networks. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

Application: Connections in industrial buildings, power supply in the ground, outdoors and underwater.

#### Features and benefits

- Colour changes from blue to green whilst mixing
- Two-part, impact-proof, transparent moulding shells
- Compact, optimized dimensions
- Standard cable diameters indicated on the shells
- Safe-Filling system (SF)
- Immediately ready for use
- Longitudinally and transversely watertight
- Joint can be submerged directly after casting

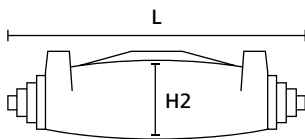
#### Content of Set / Kit

- Cast resin PUR 33
- Two-chamber pouch, transparent
- Moulding shells, transparent
- SF-system and nozzle
- Protective gloves, emery cloth, installation instructions
- HelaTape vinyl electrical tape
- Spacer for max. 5 core cable (i-1 to i-4)

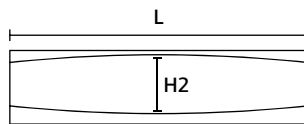


*Straight-through joints i-Line SF (safe-filling) / Straight through joints i-A Line SF (safe-filling) – Armoured.*

|                              |                          |
|------------------------------|--------------------------|
| <b>MATERIAL</b>              | Polyurethane resin (PUR) |
| <b>Colour</b>                | Green (GN)               |
| <b>Operating Temperature</b> | -25 °C to +120 °C        |
| <b>Storage Temperature</b>   | +4 °C to +40 °C          |
| <b>Shelf Life</b>            | 48 months                |



*i-Line (i-0 - i-6)*



*i-Line (i-7)*

**i** Without connector!



[www.HellermannTyton.com/iLine-rail21](http://www.HellermannTyton.com/iLine-rail21)

| TYPE              | Ø Main Cable | Main Cable mm <sup>2</sup> |         | Length (L) | Height (H2) | Resin Quantity     | Article-No. |
|-------------------|--------------|----------------------------|---------|------------|-------------|--------------------|-------------|
|                   |              | min                        | max     |            |             |                    |             |
| <b>i-0 / SF</b>   | 6-16         | 3 x 1,5                    | 5 x 2,5 | 182.0      | 25.0        | 95 ml/130 g        | 435-00080   |
| <b>i-1 / SF</b>   | 6-24         | 3 x 1,5                    | 5 x 6   | 190.0      | 36.0        | 165 ml/226 g       | 435-00081   |
| <b>i-1.5 / SF</b> | 6-24         | 3 x 1,5                    | 5 x 10  | 215.0      | 39.0        | 220 ml/301 g       | 435-00088   |
| <b>i-2 / SF</b>   | 14-32        | 5 x 1,5                    | 5 x 16  | 276.0      | 49.0        | 400 ml/548 g       | 435-00082   |
| <b>i-3 / SF</b>   | 21-39        | 5 x 10                     | 5 x 35  | 360.0      | 54.0        | 655 ml/897 g       | 435-00083   |
| <b>i-4 / SF</b>   | 28-50        | 4 x 25                     | 4 x 95  | 400.0      | 69.0        | 1140 ml/1562 g     | 435-00084   |
| <b>i-5 / SF</b>   | 33-62        | 4 x 50                     | 4 x 150 | 520.0      | 100.0       | 2 x 1450 ml/1987 g | 435-00085   |
| <b>i-6 / SF</b>   | 48-80        | 4 x 150                    | 4 x 240 | 700.0      | 128.0       | 4 x 1640 ml/2247 g | 435-00086   |
| <b>i-7 / SF</b>   | 55-77        | 4 x 185                    | 4 x 400 | 870.0      | 140.0       | 5 x 1950 ml/2672 g | 435-00087   |

All dimensions in mm. Subject to technical changes.



Add items to your watchlist!  
[www.HT.click/12-71](http://www.HT.click/12-71)





### Straight-through cable joints with connectors

#### RELICON i-Line Premium SF with PUR 33

RELICON Premium straight-through joints are provided with an integrated connector block and made for low-voltage electrical networks. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables. Application: Connections in industrial buildings, power supply in the ground, outdoors and underwater.

#### Features and benefits

- Colour changes from blue to green whilst mixing
- Two-part, impact-proof, transparent moulding shells
- Compact, optimized dimensions
- Standard cable diameters indicated on the shells
- Safe-Filling system (SF)
- Immediately ready for use
- Longitudinally and transversely watertight
- Joint can be submerged directly after casting
- Connectors for aluminium and copper conductors
- Safe connection for up to 5-core cables

#### Content of Set / Kit

- Cast resin PUR 33
- Two-chamber pouch, transparent
- Moulding shells, transparent
- SF-system and nozzle
- Protective gloves, emery cloth, installation instructions
- HelaTape vinyl electrical tape
- Connector block with 5 screw connectors incl. allen key



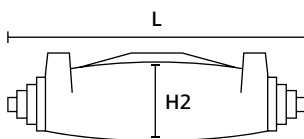
*Straight-through joints i-Line SF (safe-filling) / Straight through joints i-A Line SF (safe-filling) – Armoured.*



*SV-Connector blocks.*



**With connector!**



*i-Line Premium*

|                              |                          |
|------------------------------|--------------------------|
| <b>MATERIAL</b>              | Polyurethane resin (PUR) |
| <b>Colour</b>                | Green (GN)               |
| <b>Operating Temperature</b> | -25 °C to +120 °C        |
| <b>Storage Temperature</b>   | +4 °C to +40 °C          |
| <b>Shelf Life</b>            | 48 months                |



| TYPE             | Ø Main Cable | Main Cable mm <sup>2</sup> |        | Length (L) | Height (H2) | Resin Quantity | Article-No. |
|------------------|--------------|----------------------------|--------|------------|-------------|----------------|-------------|
|                  |              | min                        | max    |            |             |                |             |
| i-1 Premium / SF | 6-24         | 3 x 1,5                    | 5 x 6  | 190.0      | 36.0        | 165 ml/226 g   | 435-12060   |
| i-2 Premium / SF | 14-32        | 5 x 1,5                    | 5 x 16 | 276.0      | 49.0        | 400 ml/548 g   | 435-12061   |
| i-3 Premium / SF | 21-39        | 5 x 6                      | 5 x 35 | 360.0      | 54.0        | 655 ml/897 g   | 435-12062   |

All dimensions in mm. Subject to technical changes.





### Branch cable joints

#### RELICON Y-Line SF

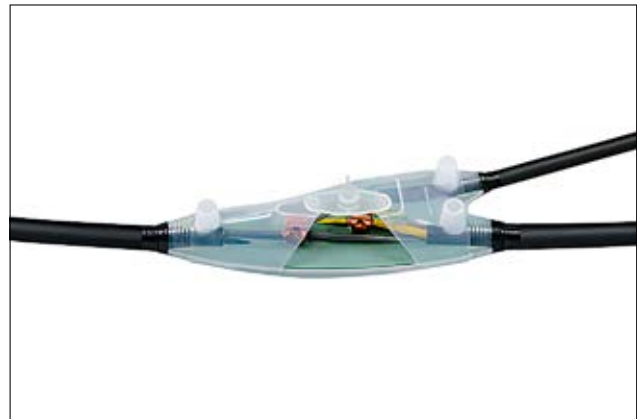
RELICON branch joints are made for installations in low-voltage electrical networks. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables. Application: Connections in industrial buildings, power supply in the ground, outdoors and in the water.

#### Features and benefits

- Two-part, impact-proof, transparent moulding shells
- Compact, optimized dimensions
- Standard cable diameters indicated on the shells
- SF-system
- Immediately ready for use
- Longitudinally and transversely watertight
- Joint can be cast under influence of water

#### Content of Set / Kit

- Cast resin PUR 33
- Two-chamber pouch, transparent
- Moulding shells, transparent
- SF-system and nozzle
- Protective gloves, emery cloth, installation instructions
- HelaTape vinyl electrical tape



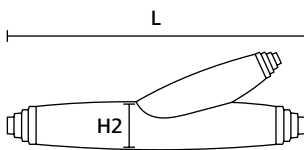
Branch joint Y-Line SF (safe filling) / Branch joint Y-A Line SF (safe filling) – Armoured.

|                              |                          |
|------------------------------|--------------------------|
| <b>MATERIAL</b>              | Polyurethane resin (PUR) |
| <b>Colour</b>                | Green (GN)               |
| <b>Operating Temperature</b> | -25 °C to +120 °C        |
| <b>Storage Temperature</b>   | +4 °C to +40 °C          |
| <b>Shelf Life</b>            | 48 months                |

**RoHS** ✓



**Without branch connector!**



Y-Line

| TYPE     | Ø Main Cable | Main Cable mm <sup>2</sup> min - max |         | Ø Branch Cable | Angle | Branch Cable mm <sup>2</sup> min - max |        | Length (L) | Height (H2) | Resin Quantity     | Article-No. |
|----------|--------------|--------------------------------------|---------|----------------|-------|--|--------|------------|-------------|--------------------|-------------|
| Y-0 / SF | 8-24         | 3 x 1,5                              | 4 x 10  | 8-24           | 30°   | 3 x 1,5                                | 4 x 4  | 190.0      | 60.0        | 240 ml/329 g       | 435-12063   |
| Y-1 / SF | 6-26         | 3 x 1,5                              | 5 x 10  | 6-26           | 30°   | 3 x 1,5                                | 5 x 6  | 205.0      | 70.0        | 490 ml/671 g       | 435-12064   |
| Y-2 / SF | 25-42        | 4 x 16                               | 5 x 25  | 15-36          | 20°   | 4 x 6                                  | 5 x 16 | 350.0      | 98.0        | 1445 ml/1980 g     | 435-12065   |
| Y-3 / SF | 10-40        | 4 x 16                               | 5 x 16  | 13-28          | 20°   | 4 x 10                                 | 5 x 10 | 330.0      | 90.0        | 955 ml/1308 g      | 435-12066   |
| Y-5 / SF | 35-51        | 4 x 25                               | 4 x 150 | 17-33          | 15°   | 4 x 10                                 | 4 x 50 | 298.0      | 120.0       | 2045 ml/2802 g     | 435-12067   |
| Y-6 / SF | 30-58        | 4 x 95                               | 4 x 185 | 17-42          | 20°   | 4 x 10                                 | 4 x 70 | 430.0      | 130.0       | 2 x 1450 ml/1987 g | 435-12068   |

All dimensions in mm. Subject to technical changes.



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### Branch cable joints

#### RELICON T-Line SF

RELICON branch joints are made for installations in low-voltage electrical networks. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables. Application: Connections in industrial buildings, power supply in the ground, outdoors and in the water.

#### Features and benefits

- Two-part, impact-proof, transparent moulding shells
- Compact, optimized dimensions
- Standard cable diameters indicated on the shells
- SF-system
- Immediately ready for use
- Longitudinally and transversely watertight
- Joint can be cast under influence of water

#### Content of Set / Kit

- Cast resin PUR 33
- Two-chamber pouch, transparent
- Moulding shells, transparent
- SF-system and nozzle
- Protective gloves, emery cloth, installation instructions
- HelaTape vinyl electrical tape

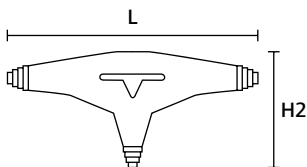


Branch joint T-Line SF (safe filling) / Branch joint T-A Line SF (safe filling) – Armoured.

|                              |                          |
|------------------------------|--------------------------|
| <b>MATERIAL</b>              | Polyurethane resin (PUR) |
| <b>Colour</b>                | Green (GN)               |
| <b>Operating Temperature</b> | -25 °C to +120 °C        |
| <b>Storage Temperature</b>   | +4 °C to +40 °C          |
| <b>Shelf Life</b>            | 48 months                |



**Without branch connector!**



T-Line

| TYPE     | Ø Main Cable | Main Cable mm <sup>2</sup> |        | Ø Branch Cable | Angle | Branch Cable mm <sup>2</sup> |        | Length (L) | Height (H2) | Resin Quantity     | Article-No. |
|----------|--------------|----------------------------|--------|----------------|-------|------------------------------|--------|------------|-------------|--------------------|-------------|
|          |              | min                        | max    |                |       | min                          | max    |            |             |                    |             |
| T-1 / SF | 16-26        | 5 x 1,5                    | 5 x 10 | 10-24          | 90°   | 3 x 1,5                      | 5 x 6  | 276.0      | 177.0       | 455 ml/623 g       | 435-12069   |
| T-2 / SF | 25-32        | 5 x 6                      | 5 x 16 | 18-25          | 90°   | 5 x 1,5                      | 5 x 10 | 380.0      | 225.0       | 2045 ml/2802 g     | 435-12070   |
| T-3 / SF | 29-40        | 5 x 10                     | 5 x 50 | 20-30          | 90°   | 5 x 6                        | 5 x 16 | 520.0      | 205.0       | 2 x 1450 ml/1987 g | 435-12071   |

All dimensions in mm. Subject to technical changes.





### Two-component polyurethane cast resin

#### RELICON PUR 33

The RELICON PUR 33 cast resin has been created for the electrical insulation and mechanical protection of cable connections in low-voltage electrical networks. Also suitable as mechanical and moisture protection on medium-voltage cable connections.

Application: For indoor and outdoor use.

#### Features and benefits

- In a practical, transparent two-chamber pouch
- Colour changes from blue to green whilst mixing
- Safe-Filling system (SF)
- Excellent flow properties, low volume shrinkage
- Cold curing and very hydrophobic, to cast under the influence of water
- High hydrolytic stability and good curing at low temperatures
- UV, ageing and weather resistant
- Outstanding impact strength and resistance to moisture and atmospheric corrosion
- Excellent adhesion to polymeric cables and wires made of PVC, XLPE, PE, EPR
- SVHC-free, contains no hazardous substances, the cured product can be disposed of with house hold waste
- Halogen free



Two-component polyurethane cast resin PUR 33.

|                              |  |
|------------------------------|--|
| <b>MATERIAL</b>              | Polyurethane resin (PUR)   |
| <b>Colour</b>                | Green (GN)   |
| <b>Operating Temperature</b> | -25 °C to +120 °C  |
| <b>Mixing Ratio (weight)</b> | 100:26   |
| <b>Exothermicity max.</b>    | +71 °C   |
| <b>Gel Time</b>              | 48 min. 5 °C, 20 min. 23 °C, 9 min. 40 °C                          |
| <b>Pot Life</b>              | 43 min. 5 °C, 15 min. 23 °C, 8 min. 40 °C                          |
| <b>Dielectric Strength</b>   | 38 kV/mm   |
| <b>Viscosity</b>             | 4500 mPa*s, 5 °C (EN ISO 2555),<br>3000 mPa*s, 23 °C (EN ISO 2555) |
| <b>Impact Strength</b>       | 26 kJ/m <sup>2</sup>   |
| <b>Shore Hardness D</b>      | 65±5   |
| <b>Storage Temperature</b>   | +4 °C to +40 °C  |
| <b>Shelf Life</b>            | 48 months  |



| TYPE          | Resin Quantity | Article-No. |
|---------------|----------------|-------------|
| Resin-33-SF-N | 95 ml/130 g    | 435-12112   |
|               | 240 ml/329 g   | 435-12114   |
|               | 490 ml/671 g   | 435-12117   |
|               | 655 ml/897 g   | 435-12118   |
|               | 955 ml/1308 g  | 435-12119   |
|               | 1140 ml/1562 g | 435-12120   |
|               | 1445 ml/1980 g | 435-12121   |
|               | 1950 ml/2672 g | 435-12122   |
| Resin-33-B-SF | 1640 ml/2247 g | 435-00257   |
|               | 2045 ml/2802 g | 435-00259   |

Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content.



Add items to your watchlist!

[www.HT.click/12-75](http://www.HT.click/12-75)





## RELICON Religel Clear

### Religel Clear

RELICON Religel Clear is a transparent, soft elastic two-component silicone gel. It is packed in practical bottles or canisters including measuring cup and mixing stick. Encapsulation of printed circuit boards, Installation of electrical connections, Belowground or submerged, Model-making and hobby applications

#### Features and benefits

- Optimal visual control through transparent material
- Crystal clear gel after curing, excellent insulating properties
- Multiple use possible, mixing ratio 1:1
- Excellent flow and insulating properties
- Excellent moisture and chemical resistance
- Soft elastic, vibration absorbing and removable residue-free



RELICON Religel Clear, Transparent and heat-resistant two-component silicone gel.

|                              |  |
|------------------------------|--|
| <b>MATERIAL</b>              | Silicone (SI)                                      |
| <b>Colour</b>                | Transparent (CL)                                   |
| <b>Operating Temperature</b> | -60 °C to +200 °C                                  |
| <b>Mixing Ratio (weight)</b> | 1:1  |
| <b>Gel Time</b>              | 20 min. 23 °C                                      |
| <b>Pot Life</b>              | 10 min. 23 °C                                      |
| <b>Density</b>               | 0.97 g/cm <sup>3</sup> , 20 °C (DIN EN ISO 2811-2) |
| <b>Dielectric Strength</b>   | >25 kV/mm  |
| <b>Viscosity</b>             | 1000 mPa*s, 23 °C (EN ISO 2555)                    |
| <b>Storage Temperature</b>   | +4 °C to +40 °C                                    |
| <b>Shelf Life</b>            | Unlimited  |



| TYPE                 | Pack Cont. | Article-No. |
|----------------------|------------|-------------|
| Religel Clear 500    | 500 ml     | 435-00757   |
| Religel Clear 1.000  | 1,000 ml   | 435-00754   |
| Religel Clear 10.000 | 10,000 ml  | 435-00755   |

Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content.





### RELICON Religel Plus

#### Religel Plus

RELICON Religel Plus is a green-transparent, elastic 2-component silicone gel. It is packed in practical bottles or canisters including measuring cup and mixing stick. It is particularly suited to fill junction boxes for low voltage applications. Electrical insulation in low-voltage applications, Encapsulation of cables and wires in junction boxes, Building and household installations, Belowground, submerged.

#### Features and benefits

- Timesaving due to fast curing time
- Stable up to 200 °C
- Visual control of the homogenous mixture indicated by green-coloured component B
- Multiple use possible, mixing ratio 1:1
- Excellent flow and insulating properties
- Excellent moisture and chemical resistance
- Soft elastic, vibration absorbing and removable residue-free



RELICON Religel Plus - Fast curing and heat resistant two-component silicone gel.

|                              |  |
|------------------------------|--|
| <b>MATERIAL</b>              | Silicone (SI)                                      |
| <b>Colour</b>                | Green (GN), Transparent (CL)                       |
| <b>Operating Temperature</b> | -60 °C to +200 °C                                  |
| <b>Mixing Ratio (weight)</b> | 1:1  |
| <b>Gel Time</b>              | 12 min. 23 °C                                      |
| <b>Pot Life</b>              | 5 min. 23 °C                                       |
| <b>Density</b>               | 0.97 g/cm <sup>3</sup> , 20 °C (DIN EN ISO 2811-2) |
| <b>Dielectric Strength</b>   | >25 kV/mm  |
| <b>Viscosity</b>             | 1000 mPa*s, 23 °C (EN ISO 2555)                    |
| <b>Storage Temperature</b>   | +4 °C to +40 °C                                    |
| <b>Shelf Life</b>            | Unlimited  |



| TYPE                | Pack Cont. | Article-No. |
|---------------------|------------|-------------|
| Religel Plus 500    | 500 ml     | 435-00756   |
| Religel Plus 1.000  | 1,000 ml   | 435-00752   |
| Religel Plus 10.000 | 10,000 ml  | 435-00753   |

Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content.



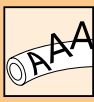
Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.



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### Identification tags for cable bundle, thermal transfer

#### TIPTAG PU – UV-stabilised Tiptags, Polyurethane

The Tiptag PU cable markers consist of a robust and flexible polyurethane material. It is especially suited for harsh environments where the material is exposed to chemical, fluids or abrasion. Tiptag PU's are presented in a special perforated format which include fastening slots for easy fitting with cable ties. They are also suitable for retrofit purposes. Print from the reel with HellermannTyton's premium range of thermal transfer printers. A special ribbon has been developed for Tiptag PU to create a "tattoo" effect so that the marking cannot be rubbed off and is particularly durable and resistant to harsh abrasion.

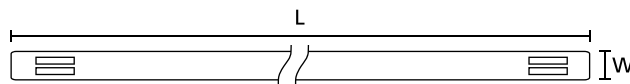
#### Features and benefits

- Durable and robust polyurethane material
- For large cable bundles and wires
- Flame retardant
- Weather resistant
- Abrasion resistant
- Good resistance to chemicals
- Available in white and yellow as standard
- Perforated format with fastening slots for cable ties



TIPTAG PU – printed mark has a tattoo-like permanency.

|                                 |   |
|---------------------------------|---|
| <b>MATERIAL</b>                 | Polyurethane (PUR)                      |
| <b>Operating Temperature</b>    | -65 °C to +120 °C, intermittent +150 °C |
| <b>Flammability</b>             | self-extinguishing, UL 94 V0 (3 mm)     |
| <b>Recommended Ribbon Type</b>  | TTRC+                                   |
| <b>Thermal Transfer Printer</b> | TT431, TT4030                           |

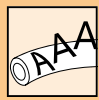


| TYPE           | Length (L) | Width (W) | Pack Cont. | Colour      | Article-No. |
|----------------|------------|-----------|------------|-------------|-------------|
| TTAGPU11X65WH  | 65.0       | 11.0      | 190 pcs.   | White (WH)  | 556-25012   |
| TTAGPU11X65YE  | 65.0       | 11.0      | 190 pcs.   | Yellow (YE) | 556-25019   |
| TTAGPU15X65WH  | 65.0       | 15.0      | 190 pcs.   | White (WH)  | 556-25007   |
| TTAGPU15X65YE  | 65.0       | 15.0      | 190 pcs.   | Yellow (YE) | 556-25011   |
| TTAGPU11X100WH | 100.0      | 11.0      | 125 pcs.   | White (WH)  | 556-25021   |
| TTAGPU11X100YE | 100.0      | 11.0      | 125 pcs.   | Yellow (YE) | 556-25020   |
| TTAGPU15X100WH | 100.0      | 15.0      | 125 pcs.   | White (WH)  | 556-25006   |
| TTAGPU15X100YE | 100.0      | 15.0      | 125 pcs.   | Yellow (YE) | 556-25010   |

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.





### Self-laminating labels, thermal transfer

#### Helatag 1209

These labels are ideal identifying cables and wire. They consist of a printable area plus a lamination function for protection of print text against humidity, dirt, debris and mechanical abrasion. Due to its flexibility these labels are also suitable for flat ribbon cables.

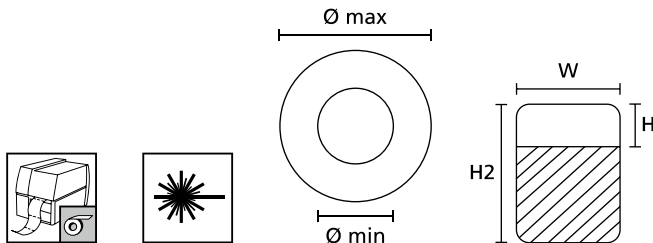
#### Features and benefits

- High-quality self-laminating labels
- Suitable for marking of wires and cables
- Laminating function gives excellent protection against humidity and mechanical abrasion
- Rounded edge design gives additional bonding strength



Helatag 1209 offers an excellent protection against abrasion and environmental impact.

|                                  |   |
|----------------------------------|---|
| <b>MATERIAL</b>                  | Type 1209, Vinyl (1209)   |
| <b>Operating Temperature</b>     | -20 °C to +80 °C  |
| <b>Curing Temperature</b>        | from 0 °C   |
| <b>Adhesive</b>                  | Acrylic   |
| <b>Thickness of Foil</b>         | 90 µm   |
| <b>Chem. Material Properties</b> | Resistant to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis. |
| <b>Recommended Ribbon Type</b>   | TT932DOUT   |
| <b>Thermal Transfer Printer</b>  | TT431, TT4030   |



| TYPE               | Bundle Ø min. | Bundle Ø max. | Width (W) | Height (H) | Height (H2) | Width of Liner (WL) | Labels per Row | Pack Cont.  | Colour                       | Article-No. |
|--------------------|---------------|---------------|-----------|------------|-------------|---------------------|----------------|-------------|------------------------------|-------------|
| TAG51TD3-1209-WHCL | 1.4           | 3.0           | 25.4      | 8.8        | 19.1        | 85.0                | 3 pcs.         | 5,000 pcs.  | White (WH), Transparent (CL) | 596-12091   |
| TAG26TD6-1209-WHCL | 1.5           | 3.0           | 12.7      | 9.5        | 19.1        | 85.0                | 6 pcs.         | 10,000 pcs. | White (WH), Transparent (CL) | 596-12096   |
| TAG36TD7-1209-WHCL | 2.0           | 4.7           | 12.7      | 9.0        | 23.8        | 95.0                | 7 pcs.         | 10,000 pcs. | White (WH), Transparent (CL) | 596-12097   |
| TAG2TD6-1209-WHCL  | 3.5           | 7.6           | 12.7      | 12.7       | 36.5        | 82.0                | 6 pcs.         | 5,000 pcs.  | White (WH), Transparent (CL) | 596-61209   |
| TAG22TD3-1209-WHCL | 3.5           | 7.6           | 25.4      | 12.7       | 36.5        | 82.0                | 3 pcs.         | 2,500 pcs.  | White (WH), Transparent (CL) | 596-32091   |
| TAG24TD1-1209-WHCL | 3.5           | 7.6           | 50.8      | 12.7       | 36.5        | 55.0                | 1 pc.          | 1,000 pcs.  | White (WH), Transparent (CL) | 596-12094   |

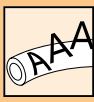
All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.



Add items to your watchlist!

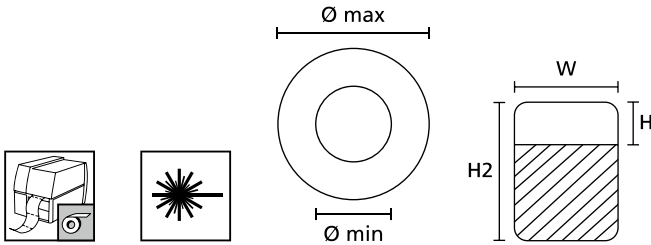
[www.HT.click/12-79](http://www.HT.click/12-79)





### Self-laminating labels, thermal transfer

Helatag 1209

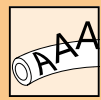


| TYPE                | Bundle Ø min. | Bundle Ø max. | Width (W) | Height (H) | Height (H2) | Width of Liner (WL) | Labels per Row | Pack Cont. | Colour                       | Article-No. |
|---------------------|---------------|---------------|-----------|------------|-------------|---------------------|----------------|------------|------------------------------|-------------|
| TAG23TD5-1209-WHCL  | 4.5           | 10.0          | 19.1      | 12.7       | 44.5        | 101.6               | 5 pcs.         | 5,000 pcs. | White (WH), Transparent (CL) | 596-12095   |
| TAG25TD3-1209-WHCL  | 4.5           | 10.0          | 25.4      | 12.7       | 44.5        | 82.0                | 3 pcs.         | 2,500 pcs. | White (WH), Transparent (CL) | 596-51209   |
| TAG9TD3-1209-WHCL   | 5.5           | 12.1          | 25.4      | 19.1       | 57.1        | 82.0                | 3 pcs.         | 2,500 pcs. | White (WH), Transparent (CL) | 596-91209   |
| TAG10TD2-1209-WHCL  | 5.5           | 12.1          | 49.5      | 19.1       | 57.1        | 101.6               | 2 pcs.         | 1,000 pcs. | White (WH), Transparent (CL) | 596-12090   |
| TAG91TD1-1209-WHCL  | 8.0           | 16.0          | 70.0      | 35.0       | 85.0        | 74.0                | 1 pc.          | 500 pcs.   | White (WH), Transparent (CL) | 596-41209   |
| TAG1TD2-1209-WHCL   | 8.5           | 18.2          | 48.2      | 19.1       | 79.2        | 101.6               | 2 pcs.         | 1,000 pcs. | White (WH), Transparent (CL) | 596-21209   |
| TAG3TD3-1209-WHCL   | 10.0          | 22.2          | 25.4      | 25.4       | 95.3        | 82.0                | 3 pcs.         | 1,000 pcs. | White (WH), Transparent (CL) | 596-31209   |
| TAG6TD1-1209-WHCL   | 10.0          | 22.2          | 50.8      | 25.4       | 95.3        | 55.0                | 1 pc.          | 500 pcs.   | White (WH), Transparent (CL) | 596-11209   |
| TAG107TD3-1209-WHCL | 12.0          | 37.5          | 25.4      | 31.8       | 149.9       | 82.0                | 3 pcs.         | 1,000 pcs. | White (WH), Transparent (CL) | 596-01209   |
| TAG38TD3-1209-WHCL  | 20.8          | 47.5          | 25.4      | 38.1       | 187.2       | 82.0                | 3 pcs.         | 1,000 pcs. | White (WH), Transparent (CL) | 596-12098   |
| TAG07TD1-1209-WHCL  | 20.8          | 47.5          | 50.8      | 25.4       | 187.2       | 55.0                | 1 pc.          | 250 pcs.   | White (WH), Transparent (CL) | 596-71209   |

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.





### Self-laminating labels, thermal transfer

#### Helatag 323, high temperature

This self-laminating label consists of a white printable area with a protective laminate ensure the printed text is shielded from negative environmental influences - such as humidity, dirt, debris and mechanical abrasion. It is ideally suited for wire and cable marking in both high temperature and outside environments, particular used in industry as well as military technology.

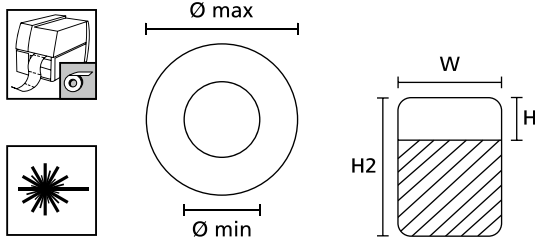
#### Features and benefits

- High temperature self-laminating labels with an inscription field
- Extremely scratch and chemical resistant
- Protective laminating foil ensures optimal protection against humidity, dirt, debris, and mechanical abrasion
- Survives 5 years external weathering in central European climate



Easy marking of flexible, semi-rigid and rigid cables and wires.

|                                  |  |
|----------------------------------|--|
| <b>MATERIAL</b>                  | Type 323, Polyvinylidene Fluoride (323)  |
| <b>Operating Temperature</b>     | -40 °C to +140 °C  |
| <b>Curing Temperature</b>        | from +10 °C  |
| <b>Adhesive</b>                  | Acrylic  |
| <b>Thickness of Foil</b>         | 25 µm  |
| <b>Chem. Material Properties</b> | Excellent resistance against water, UV radiation, weather influence and solvents based on petroleum. |
| <b>Recommended Ribbon Type</b>   | TT932DOUT  |
| <b>Thermal Transfer Printer</b>  | TT431, TT4030  |



| TYPE               | Bundle Ø min. | Bundle Ø max. | Width (W) | Height (H) | Height (H2) | Width of Liner (WL) | Labels per Row | Pack Cont.  | Colour                       | Article-No. |
|--------------------|---------------|---------------|-----------|------------|-------------|---------------------|----------------|-------------|------------------------------|-------------|
| TAG51TD3-323-WHCL  | 1.4           | 3.0           | 25.4      | 8.8        | 19.1        | 85.0                | 3 pcs.         | 5,000 pcs.  | White (WH), Transparent (CL) | 596-51320   |
| TAG26TD6-323-WHCL  | 1.5           | 3.0           | 12.7      | 9.5        | 19.1        | 85.0                | 6 pcs.         | 10,000 pcs. | White (WH), Transparent (CL) | 596-26320   |
| TAG36TD7-323-WHCL  | 2.0           | 4.7           | 12.7      | 9.0        | 23.8        | 95.0                | 7 pcs.         | 10,000 pcs. | White (WH), Transparent (CL) | 596-36320   |
| TAG2TD6-323-WHCL   | 3.5           | 7.6           | 12.7      | 12.7       | 36.5        | 82.0                | 6 pcs.         | 5,000 pcs.  | White (WH), Transparent (CL) | 596-02320   |
| TAG22TD3-323-WHCL  | 3.5           | 7.6           | 25.4      | 12.7       | 36.5        | 82.0                | 3 pcs.         | 2,500 pcs.  | White (WH), Transparent (CL) | 596-22320   |
| TAG24TD1-323-WHCL  | 3.5           | 7.6           | 50.8      | 12.7       | 36.5        | 55.0                | 1 pc.          | 1,000 pcs.  | White (WH), Transparent (CL) | 596-24320   |
| TAG23TD5-323-WHCL  | 4.5           | 10.0          | 19.1      | 12.7       | 44.5        | 101.6               | 5 pcs.         | 5,000 pcs.  | White (WH), Transparent (CL) | 596-23320   |
| TAG25TD3-323-WHCL  | 4.5           | 10.0          | 25.4      | 12.7       | 44.5        | 82.0                | 3 pcs.         | 2,500 pcs.  | White (WH), Transparent (CL) | 596-25320   |
| TAG9TD3-323-WHCL   | 5.5           | 12.1          | 25.4      | 19.1       | 57.1        | 82.0                | 3 pcs.         | 2,500 pcs.  | White (WH), Transparent (CL) | 596-09320   |
| TAG10TD2-323-WHCL  | 5.5           | 12.1          | 49.5      | 19.1       | 57.1        | 101.6               | 2 pcs.         | 1,000 pcs.  | White (WH), Transparent (CL) | 596-10320   |
| TAG1TD2-323-WHCL   | 8.5           | 18.2          | 48.2      | 19.1       | 79.2        | 101.6               | 2 pcs.         | 1,000 pcs.  | White (WH), Transparent (CL) | 596-01320   |
| TAG3TD3-323-WHCL   | 10.0          | 22.2          | 25.4      | 25.4       | 95.3        | 82.0                | 3 pcs.         | 1,000 pcs.  | White (WH), Transparent (CL) | 596-03320   |
| TAG6TD1-323-WHCL   | 10.0          | 22.2          | 50.8      | 25.4       | 95.3        | 55.0                | 1 pc.          | 500 pcs.    | White (WH), Transparent (CL) | 596-06320   |
| TAG107TD3-323-WHCL | 12.0          | 37.5          | 25.4      | 31.8       | 149.9       | 82.0                | 3 pcs.         | 1,000 pcs.  | White (WH), Transparent (CL) | 596-10732   |
| TAG38TD3-323-WHCL  | 20.8          | 47.5          | 25.4      | 38.1       | 187.2       | 82.0                | 3 pcs.         | 1,000 pcs.  | White (WH), Transparent (CL) | 596-38320   |
| TAG07TD1-323-WHCL  | 20.8          | 47.5          | 50.8      | 25.4       | 187.2       | 55.0                | 1 pc.          | 250 pcs.    | White (WH), Transparent (CL) | 596-07320   |

All dimensions in mm. Subject to technical changes.

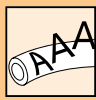
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.



Add items to your watchlist!

[www.HT.click/12-81](http://www.HT.click/12-81)





### Self-laminating labels, manual marking

#### RiteOn, material 1401, dispenser

A specially developed material for use in labels required to wrap around cables and wires. The conformable structure of the label ensures that once the label is applied to the wire it remains in place without lifting. The SPRO200-1401-WH Starter Pack contains all you need to start work identifying your wires:

- 1 x RiteOn dispenser
- 1 x RO202 reel of 150 self-laminating labels for cable diameters ranging from 6 mm to 12 mm
- 1 x T82S-BK black indelible ink marker pen

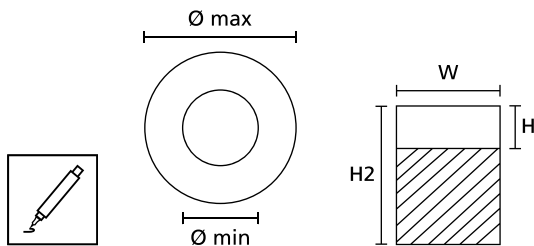
#### Features and benefits

- Palm sized hand held self-laminating label dispenser
- Easy to write on and dispense labels
- Wide range of wire diameters covered as standard
- Ideal for low volume maintenance and repair work
- Write text with specially formulated fast-drying ink T82 pens



Easy to write and dispense labels with RiteOn label dispenser.

|                                  |  |
|----------------------------------|--|
| <b>MATERIAL</b>                  | Type 1401, Vinyl (1401)                    |
| <b>Operating Temperature</b>     | -40 °C to +80 °C                           |
| <b>Curing Temperature</b>        | from +10 °C                                |
| <b>Adhesive</b>                  | Acrylic                                    |
| <b>Thickness of Foil</b>         | 80 µm                                      |
| <b>Chem. Material Properties</b> | Resistant to water, oil and many solvents. |



[www.HellermannTyton.com/RiteOn-rail21](http://www.HellermannTyton.com/RiteOn-rail21)

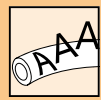
| TYPE             | Description      | Bundle Ø min. | Bundle Ø max. | Width (W) | Height (H) | Height (H2) | Pack Cont. | Colour                       | Article-No. |
|------------------|------------------|---------------|---------------|-----------|------------|-------------|------------|------------------------------|-------------|
| RO201-1401-WH    | Filled dispenser | 4.0           | 8.1           | 12.7      | 12.7       | 38.1        | 200 pcs.   | White (WH), Transparent (CL) | 550-14011   |
| RO202-1401-WH    |                  | 6.1           | 12.1          | 19.1      | 12.7       | 50.8        | 150 pcs.   | White (WH), Transparent (CL) | 550-14012   |
| RO203-1401-WH    |                  | 9.1           | 18.2          | 19.1      | 25.4       | 76.2        | 100 pcs.   | White (WH), Transparent (CL) | 550-14013   |
| RO201REF-1401-WH | Refill packs     | 4.0           | 8.1           | 12.7      | 12.7       | 38.1        | 200 pcs.   | White (WH), Transparent (CL) | 550-14014   |
| RO202REF-1401-WH |                  | 6.1           | 12.1          | 19.1      | 12.7       | 50.8        | 150 pcs.   | White (WH), Transparent (CL) | 550-11401   |
| RO203REF-1401-WH |                  | 9.1           | 18.2          | 19.1      | 25.4       | 76.2        | 100 pcs.   | White (WH), Transparent (CL) | 550-71401   |
| SPRO200-1401-WH  | Starter pack     | 6.1           | 12.1          | 19.1      | 12.7       | 50.8        | 150 pcs.   | White (WH), Transparent (CL) | 550-14010   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.

| TYPE    | Description          | Pack Cont. | Colour     | Article-No. |
|---------|----------------------|------------|------------|-------------|
| T82S-BK | Indelible Marker Pen | 2 pcs.     | Black (BK) | 500-50820   |
| T82R-RD | Indelible Marker Pen | 2 pcs.     | Red (RD)   | 500-50822   |

Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.





### Self-laminating labels, manual marking

#### HELASIGN, material 1402, booklet

A quick and simple on-site solution, for either permanent or temporary marking of wires, cables and pipes.

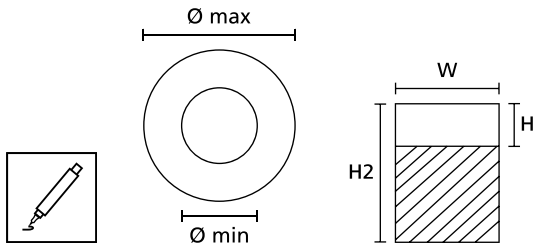
#### Features and benefits

- Self-laminating labels supplied in handy pocket-sized booklets
- Booklet cover protects labels when stored
- Ideal for low volume maintenance and repair work
- Easy to write on and dispense labels
- Laminating function gives excellent protection against humidity and mechanical abrasion
- Applicator tool for clean application enclosed
- Write text with specially formulated fast-drying ink T82 pens



Always on hand: Labels in a convenient, pocket sized and lightweight booklet.

|                                  |  |
|----------------------------------|--|
| <b>MATERIAL</b>                  | Type 1402, Vinyl (1402)                    |
| <b>Operating Temperature</b>     | -40 °C to +80 °C                           |
| <b>Curing Temperature</b>        | from +8 °C                                 |
| <b>Adhesive</b>                  | Acrylic                                    |
| <b>Thickness of Foil</b>         | 80 µm                                      |
| <b>Chem. Material Properties</b> | Resistant to water, oil and many solvents. |



| TYPE            | Bundle Ø min. | Bundle Ø max. | Width (W) | Height (H) | Height (H2) | Pack Cont. | Colour                       | Article-No. |
|-----------------|---------------|---------------|-----------|------------|-------------|------------|------------------------------|-------------|
| HSMB-C1-1402-WH | 4.0           | 8.1           | 12.7      | 12.7       | 38.1        | 240 pcs.   | White (WH), Transparent (CL) | 598-14020   |
| HSMB-C2-1402-WH | 6.1           | 12.1          | 19.1      | 12.7       | 50.8        | 120 pcs.   | White (WH), Transparent (CL) | 598-14026   |
| HSMB-C3-1402-WH | 9.1           | 18.2          | 25.4      | 19.1       | 76.2        | 60 pcs.    | White (WH), Transparent (CL) | 598-21402   |
| HSMB-C4-1402-WH | 16.2          | 32.3          | 25.4      | 25.4       | 127.0       | 30 pcs.    | White (WH), Transparent (CL) | 598-40402   |
| HSMB-C5-1402-WH | 20.2          | 40.3          | 25.4      | 25.4       | 152.0       | 30 pcs.    | White (WH), Transparent (CL) | 598-50402   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.

| TYPE    | Description          | Pack Cont. | Colour     | Article-No. |
|---------|----------------------|------------|------------|-------------|
| T82S-BK | Indelible Marker Pen | 2 pcs.     | Black (BK) | 500-50820   |
| T82R-RD | Indelible Marker Pen | 2 pcs.     | Red (RD)   | 500-50822   |

Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Add items to your watchlist!

[www.HT.click/12-83](http://www.HT.click/12-83)





### Panel plate labels, thermal transfer

#### Helatag 1220

Panel labels are durable adhesive labels especially made from a thick material that is designed to replace traditional engraved plastic plates. The white glossy colour is suited to industrial control panels, switchgear, data racks and general equipment labelling. Create crisp and clear professional looking labels by printing with HellermannTyton thermal transfer printers and ribbons. Simple label design creation is easily achieved using TagPrint Pro.

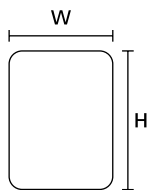
#### Features and benefits

- Cost-effective replacement for engraved plastic plates, no need for additional label holder
- High performance adhesive and compressible foam backing ensures optimal adhesion to uneven surfaces if required
- Rounded corners ensure better long term durability of adhesion
- Print high contrast text and barcodes
- Print 'On Site' not order 'Off Site'
- Special sizes and colours are possible on request
- For outstanding chemical resistance use TT122OUT



Panel labels Helatag 1220 – high performance adhesive ensures optimal adhesion to uneven surfaces.

|                                  |   |
|----------------------------------|---|
| <b>MATERIAL</b>                  | Type 1220, Polyester, white (1220)  |
| <b>Operating Temperature</b>     | -40 °C to +90 °C  |
| <b>Curing Temperature</b>        | from +10 °C   |
| <b>Adhesive</b>                  | Acrylic   |
| <b>Thickness of Foil</b>         | 50 µm   |
| <b>Chem. Material Properties</b> | Excellent resistance to ageing, weathering and UV-radiation. Extensive resistance to the influence of chemicals and solvents. |
| <b>Recommended Ribbon Type</b>   | TT122OUT, TT822OUT  |
| <b>Thermal Transfer Printer</b>  | TT431, TT4030   |



| TYPE                   | Width (W) | Height (H) | Width of Liner (WL) | Labels per Row | Pack Cont. | Colour     | Article-No. |
|------------------------|-----------|------------|---------------------|----------------|------------|------------|-------------|
| TAG13-07TDK1-1220-WH   | 13.0      | 7.0        | 21.0                | 1 pc.          | 1,000 pcs. | White (WH) | 596-00560   |
| TAG22-22TDK1-1220-WH   | 22.0      | 22.0       | 28.0                | 1 pc.          | 1,000 pcs. | White (WH) | 596-00561   |
| TAG27-08TDK1-1220-WH   | 27.0      | 8.0        | 33.0                | 1 pc.          | 1,000 pcs. | White (WH) | 596-00562   |
| TAG27-12.5TDK1-1220-WH | 27.0      | 12.5       | 33.0                | 1 pc.          | 1,000 pcs. | White (WH) | 596-00558   |
| TAG27-15TDK1-1220-WH   | 27.0      | 15.0       | 33.0                | 1 pc.          | 1,000 pcs. | White (WH) | 596-00563   |
| TAG27-18TDK1-1220-WH   | 27.0      | 18.0       | 33.0                | 1 pc.          | 1,000 pcs. | White (WH) | 596-00564   |
| TAG27-27TDK1-1220-WH   | 27.0      | 27.0       | 33.0                | 1 pc.          | 1,000 pcs. | White (WH) | 596-00565   |
| TAG35-18TDK1-1220-WH   | 35.0      | 18.0       | 41.0                | 1 pc.          | 1,000 pcs. | White (WH) | 596-00566   |
| TAG45-15TDK1-1220-WH   | 45.0      | 15.0       | 51.0                | 1 pc.          | 1,000 pcs. | White (WH) | 596-00567   |
| TAG45-25TDK1-1220-WH   | 45.0      | 25.0       | 51.0                | 1 pc.          | 1,000 pcs. | White (WH) | 596-00568   |
| TAG60-30TDK1-1220-WH   | 60.0      | 30.0       | 66.0                | 1 pc.          | 500 pcs.   | White (WH) | 596-00569   |
| TAG90-45TDK1-1220-WH   | 90.0      | 45.0       | 96.0                | 1 pc.          | 500 pcs.   | White (WH) | 596-00570   |
| TAG100-30TDK1-1220-WH  | 100.0     | 30.0       | 106.0               | 1 pc.          | 250 pcs.   | White (WH) | 596-00571   |
| TAG100-70TDK1-1220-WH  | 100.0     | 70.0       | 106.0               | 1 pc.          | 250 pcs.   | White (WH) | 596-00572   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.





### Panel plate labels, thermal transfer

#### Helatag 1221

Panel labels are durable adhesive labels especially made from a thick material that is designed to replace traditional engraved plastic plates. The silver colour is suited to industrial control panels, switchgear, data racks and general equipment labelling.

Create crisp and clear professional looking labels by printing with HellermannTyton thermal transfer printers and ribbons.

Simple label design creation is easily achieved using TagPrint Pro.

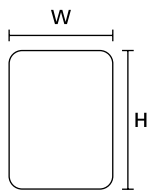
#### Features and benefits

- Cost-effective replacement for engraved plastic plates, no need for additional label holder
- High performance adhesive and compressible foam backing ensures optimal adhesion to uneven surfaces if required
- Rounded corners ensure better long term durability of adhesion
- Print high contrast text and barcodes
- Print 'On Site' not order 'Off Site'
- Special sizes and colours are possible on request
- For outstanding chemical resistance use TT122OUT



Panel labels are an ideal replacement for engraved plates.

|                                  |   |
|----------------------------------|---|
| <b>MATERIAL</b>                  | Type 1221, Polyester, silver (1221)   |
| <b>Operating Temperature</b>     | -40 °C to +90 °C  |
| <b>Curing Temperature</b>        | from +10 °C   |
| <b>Adhesive</b>                  | Acrylic   |
| <b>Thickness of Foil</b>         | 50 µm   |
| <b>Chem. Material Properties</b> | Excellent resistance to ageing, weathering and UV-radiation. Extensive resistance to the influence of chemicals and solvents. |
| <b>Recommended Ribbon Type</b>   | TT122OUT, TT822OUT  |
| <b>Thermal Transfer Printer</b>  | TT431, TT4030   |



| TYPE                   | Width (W) | Height (H) | Width of Liner (WL) | Labels per Row | Pack Cont. | Colour      | Article-No. |
|------------------------|-----------|------------|---------------------|----------------|------------|-------------|-------------|
| TAG13-07TDK1-1221-SR   | 13.0      | 7.0        | 21.0                | 1 pc.          | 1,000 pcs. | Silver (SR) | 596-00573   |
| TAG22-22TDK1-1221-SR   | 22.0      | 22.0       | 28.0                | 1 pc.          | 1,000 pcs. | Silver (SR) | 596-00574   |
| TAG27-08TDK1-1221-SR   | 27.0      | 8.0        | 33.0                | 1 pc.          | 1,000 pcs. | Silver (SR) | 596-00575   |
| TAG27-12.5TDK1-1221-SR | 27.0      | 12.5       | 33.0                | 1 pc.          | 1,000 pcs. | Silver (SR) | 596-00576   |
| TAG27-15TDK1-1221-SR   | 27.0      | 15.0       | 33.0                | 1 pc.          | 1,000 pcs. | Silver (SR) | 596-00577   |
| TAG27-18TDK1-1221-SR   | 27.0      | 18.0       | 33.0                | 1 pc.          | 1,000 pcs. | Silver (SR) | 596-00578   |
| TAG27-27TDK1-1221-SR   | 27.0      | 27.0       | 33.0                | 1 pc.          | 1,000 pcs. | Silver (SR) | 596-00579   |
| TAG35-18TDK1-1221-SR   | 35.0      | 18.0       | 41.0                | 1 pc.          | 1,000 pcs. | Silver (SR) | 596-00580   |
| TAG45-15TDK1-1221-SR   | 45.0      | 15.0       | 51.0                | 1 pc.          | 1,000 pcs. | Silver (SR) | 596-00581   |
| TAG45-25TDK1-1221-SR   | 45.0      | 25.0       | 51.0                | 1 pc.          | 1,000 pcs. | Silver (SR) | 596-00582   |
| TAG60-30TDK1-1221-SR   | 60.0      | 30.0       | 66.0                | 1 pc.          | 500 pcs.   | Silver (SR) | 596-00583   |
| TAG90-45TDK1-1221-SR   | 90.0      | 45.0       | 96.0                | 1 pc.          | 500 pcs.   | Silver (SR) | 596-00584   |
| TAG100-30TDK1-1221-SR  | 100.0     | 30.0       | 106.0               | 1 pc.          | 250 pcs.   | Silver (SR) | 596-00585   |
| TAG100-70TDK1-1221-SR  | 100.0     | 70.0       | 106.0               | 1 pc.          | 250 pcs.   | Silver (SR) | 596-00586   |

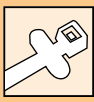
All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Add items to your watchlist!

[www.HT.click/12-85](http://www.HT.click/12-85)





### Cable ties with integrated RFID transponder

#### T50RFID – Low Frequency (LF) and High Frequency (HF)

RFID cable ties provide an innovative solution for clear and rapid product identification. The nylon cable ties are equipped with an RFID transponder and therefore combine the numerous advantages of a regular cable tie with RFID technology. The ties are especially suited for securing, serialisation, tracking and identification of products in the areas of resource management, electrical inspection, inventory, distribution and rental services as well as for easy management of maintenance and repair routines.

#### Features and benefits

- Flexible, contactless data communication
- Clear identification of objects through unique numbering
- Faster data management compared to paper solution
- More accurate documentation processes – prevention of human errors
- Robust and resistant to harsh environments and cleaning processes
- Low frequency (LF – 125 kHz) - Read only
- High frequency (HF – 13.56 MHz) - Rewritable

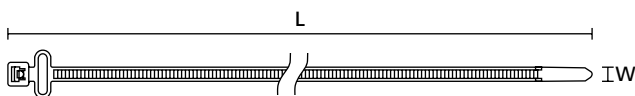


T50RFID – cable ties with RFID transponder.



[www.HellermannTyton.com/RFID-rail21](http://www.HellermannTyton.com/RFID-rail21)

|                              |                      |                  |
|------------------------------|----------------------|------------------|
| <b>MATERIAL</b>              | Polyamide 6.6 (PA66) |                  |
| <b>Frequency</b>             | 125 kHz (LF)         | 13.56 MHz (HF)   |
| <b>Idle Temperature</b>      | -40 °C to +85 °C     |                  |
| <b>Operating Temperature</b> | -40 °C to +85 °C     | -25 °C to +85 °C |
| <b>Flammability</b>          | UL 94 V2             |                  |



T50RFID, MCTRFID

| TYPE       | Frequency      | Bundle Ø min. | Bundle Ø max. | Width (W) | Length (L) | N   | Colour            | Pack Cont. | Material | Tools | Article-No. |
|------------|----------------|---------------|---------------|-----------|------------|-----|-------------------|------------|----------|-------|-------------|
| T50RFIDCLA | 125 kHz (LF)   | 1.5           | 50.0          | 4.6       | 200.0      | 225 | Yellow (YE)       | 100 pcs.   | PA66     | 6;25  | 111-01638   |
| T50RFIDCHA | 13,56 MHz (HF) | 1.5           | 50.0          | 4.6       | 200.0      | 225 | Yellow (YE)       | 100 pcs.   | PA66     | 6;25  | 111-01639   |
|            | 13,56 MHz (HF) | 1.5           | 50.0          | 4.6       | 200.0      | 225 | Black (BK)        | 100 pcs.   | PA66     | 6;25  | 111-01591   |
|            | 13,56 MHz (HF) | 1.5           | 50.0          | 4.6       | 200.0      | 225 | Light Blue (LTBU) | 100 pcs.   | PA66     | 6;25  | 111-01673   |

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

= Minimum Loop Tensile Strength for Cable Ties (newton)

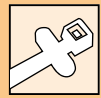
| Recommended Tools |        |
|-------------------|--------|
| 6                 | 25     |
| EVO7              | EVOcut |

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.



Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.





### Stainless steel ties with RFID transponder

#### MBTRFID – High Frequency (HF) and Ultra High Frequency (UHF)

Stainless steel RFID cable ties are fitted with a slide-on carrier for a high frequency (HF) or an ultra-high frequency (UHF) RFID transponder. These ties are ideal for product identification in all areas of harsh environment where high tensile strength and durability is of importance. The ties are especially suited for securing, serialisation, tracking and identification of products in the areas of resource management, electrical inspection, inventory, distribution and rental services as well as for easy management of maintenance and repair routines.

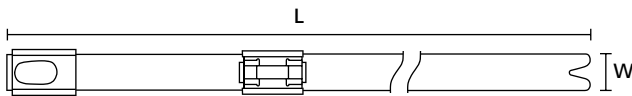
#### Features and benefits

- MBT stainless steel (316) tie complete with RFID transponder
- Especially suited for applications in harsh environments
- Patented non-releasable locking feature
- Flexible, contactless data communication
- Clear identification of objects through unique numbering
- Faster data management compared to paper solution
- More accurate documentation processes – prevention of human errors
- High frequency (HF – 13.56 MHz) and Ultra high frequency (UHF – 869 MHz) available
- Rewritable
- Standard colour red, black coating is also available as a special




MBTRFID – stainless steel RFID cable ties for product identification in harsh environments.

|                              |   |                  |
|------------------------------|---|------------------|
| <b>MATERIAL</b>              | Stainless Steel (SS316), Polyester (SP) |                  |
| <b>Frequency</b>             | 13.56 MHz (HF)                          | 869 MHz (UHF)    |
| <b>Idle Temperature</b>      | -25 °C to +70 °C                        | -40 °C to +85 °C |
| <b>Operating Temperature</b> | -25 °C to +70 °C                        | -40 °C to +85 °C |
| <b>Flammability</b>          | non-burning (except coating)            |                  |



MBTRFID

| TYPE         | Frequency      | Bundle Ø min. | Bundle Ø max. | Width (W) | Length (L) |  | Colour   | Pack Cont. | Material  | Tools | Article-No. |
|--------------|----------------|---------------|---------------|-----------|------------|---|----------|------------|-----------|-------|-------------|
| MBT8HFCRFID  | 13,56 MHz (HF) | 17.0          | 50.0          | 7.9       | 201.0      | 1,020   | Red (RD) | 50 pcs.    | SS316, SP | 15-18 | 156-01167   |
| MBT14HFCRFID | 13,56 MHz (HF) | 17.0          | 102.0         | 7.9       | 362.0      | 1,020   | Red (RD) | 50 pcs.    | SS316, SP | 15-18 | 111-01586   |
| MBT20HFCRFID | 13,56 MHz (HF) | 17.0          | 152.0         | 7.9       | 521.0      | 1,020   | Red (RD) | 50 pcs.    | SS316, SP | 15-18 | 111-01587   |
| MBT27HFCRFID | 13,56 MHz (HF) | 17.0          | 203.0         | 7.9       | 681.0      | 1,020   | Red (RD) | 50 pcs.    | SS316, SP | 15-18 | 111-01588   |
| MBT33HFCRFID | 13,56 MHz (HF) | 17.0          | 254.0         | 7.9       | 838.0      | 1,020   | Red (RD) | 50 pcs.    | SS316, SP | 15-18 | 111-01589   |
| MBT8HHFRFID  | 869 MHz (UHF)  | 17.0          | 50.0          | 7.9       | 201.0      | 1,020   | Red (RD) | 50 pcs.    | SS316, SP | 15-18 | 156-01565   |
| MBT14HHFRFID | 869 MHz (UHF)  | 17.0          | 102.0         | 7.9       | 362.0      | 1,020   | Red (RD) | 50 pcs.    | SS316, SP | 15-18 | 156-01566   |
| MBT20HHFRFID | 869 MHz (UHF)  | 17.0          | 152.0         | 7.9       | 521.0      | 1,020   | Red (RD) | 50 pcs.    | SS316, SP | 15-18 | 156-01567   |
| MBT27HHFRFID | 869 MHz (UHF)  | 17.0          | 203.0         | 7.9       | 681.0      | 1,020   | Red (RD) | 50 pcs.    | SS316, SP | 15-18 | 156-01568   |
| MBT33HHFRFID | 869 MHz (UHF)  | 17.0          | 254.0         | 7.9       | 838.0      | 1,020   | Red (RD) | 50 pcs.    | SS316, SP | 15-18 | 156-01569   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

 = Minimum Loop Tensile Strength for Cable Ties (newton)

| Recommended Tools |         |       |            |
|-------------------|---------|-------|------------|
| 15                | 16      | 17    | 18         |
| MK9SST            | MK9PSST | HDT16 | KST-STG200 |

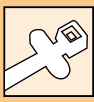
For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.



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### Identification element with integrated RFID transponder

#### HARD LINE - High frequency (HF)

The HEXTAG made from PA66 is equipped with a transponder of HF frequency. The central hole allows a simple mounting in applications where a RFID cable tie solution is not suitable. All HellermannTyton RFID products can be used for securing, serialisation, tracking and identification of products in the areas of resource management, electrical inspection, inventory, distribution and rental services as well as for easy management of maintenance and repair routines.

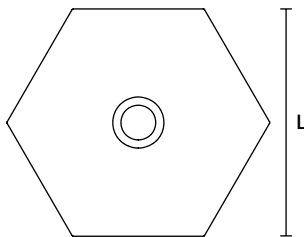
#### Features and benefits

- Can be fitted using a chosen fixing element through fixing holes
- Flexible, contactless data communication
- Clear identification of objects through unique numbering
- Faster data management compared to paper solution
- More accurate documentation processes – prevention of human errors
- Robust and resistant to harsh environments and cleaning processes
- High frequency (HF – 13.56 MHz)
- Rewritable
- Different colours possible



RFID HEXTAG – for applications where a RFID cable tie solution is not suitable.

|                              |                      |
|------------------------------|----------------------|
| <b>MATERIAL</b>              | Polyamide 6.6 (PA66) |
| <b>Frequency</b>             | 13.56 MHz (HF)       |
| <b>Idle Temperature</b>      | -40 °C to +85 °C     |
| <b>Operating Temperature</b> | -40 °C to +85 °C     |
| <b>Flammability</b>          | UL 94 V2             |



HEXTAG (front view)



HEXTAG (side view)

| TYPE        | Frequency      | Height (H) | Length (L) | Length (L2) | Colour      | Pack Cont. | Article-No. |
|-------------|----------------|------------|------------|-------------|-------------|------------|-------------|
| RFID HEXTAG | 13,56 MHz (HF) | 8.0        | 33.4       | 38.39       | Yellow (YE) | 100 pcs.   | 151-01582   |

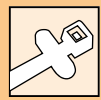
All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



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### Identification element with integrated RFID transponder

#### HARD LINE - High frequency (HF)

The CRADLE equipped with a HF transponder can be used with standard HellermannTyton cable ties. All HellermannTyton RFID products can be used for securing, serialisation, tracking and identification of products in the areas of resource management, electrical inspection, inventory, distribution and rental services as well as for easy management of maintenance and repair routines.

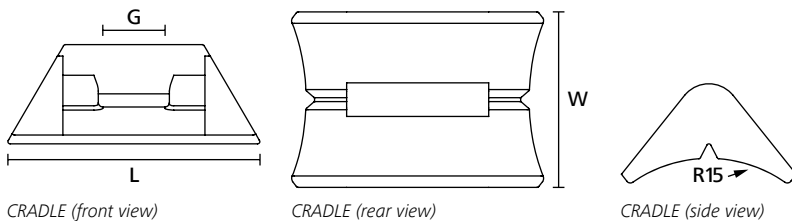
#### Features and benefits

- Cable tie slot to suit HellermannTyton's standard cable ties up to 7.9 mm wide
- Made from durable TPU and is suitable to be used in salt water conditions
- Flexible, contactless data communication
- Clear identification of objects through unique numbering
- Faster data management compared to paper solution
- More accurate documentation processes – prevention of human errors
- Robust and resistant to harsh environments and cleaning processes
- Date on RFID chip can be reprogrammed (HF) – no waste
- Yellow colour for easy visual detection
- Other colours and frequencies are available on request
- High frequency (HF – 13.56 MHz)
- Rewritable



RFID CRADLE – can be used with a standard HellermannTyton cable tie.

|                              |                                  |
|------------------------------|----------------------------------|
| <b>MATERIAL</b>              | Thermoplastic Polyurethane (TPU) |
| <b>Frequency</b>             | 13.56 MHz (HF)                   |
| <b>Idle Temperature</b>      | -40 °C to +85 °C                 |
| <b>Operating Temperature</b> | -25 °C to +85 °C                 |
| <b>Flammability</b>          | UL 94 V2                         |



| TYPE        | Frequency      | Width (W) | Length (L) | Strap Width max. (G) | Colour      | Pack Cont. | Article-No. |
|-------------|----------------|-----------|------------|----------------------|-------------|------------|-------------|
| RFID CRADLE | 13,56 MHz (HF) | 19.8      | 27.9       | 7.9                  | Yellow (YE) | 100 pcs.   | 151-01472   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



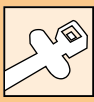
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### RFID Readers

#### RFID Handheld Reader

The HS9 handheld RFID readers are designed to read LF transponders and read/write to HF transponders fitted to HellermannTyton RFID cable ties and accessories. The readers act as an interface between the RFID transponder and computer systems or databases. Radio waves transmit the data from the RFID transponder to the reader, so that contactless reading and/or writing of information is possible. The HS9 reader is available for low frequency (LF, 125 kHz, read-only) and for high-frequency (HF, 13.56 MHz, read and write) transponders. RFID system solutions can make a significant contribution to improving the process reliability and quality in a variety of industries.

#### Features and benefits

- RFID handheld reader
- Write capability on request
- Low frequency (LF – 125 kHz)
- High frequency (HF – 13.56 MHz)
- USB, HID interface
- Wireless transmission via Bluetooth
- Operator convenience
- Lightweight and handy design
- Compatible with Android- and iOS-devices
- 9V alkaline battery included



RFID-HS9 – handheld readers for low frequency (LF) and high frequency (HF) transponders.

|                              |                              |
|------------------------------|------------------------------|
| <b>Operating Temperature</b> | 0 °C to +55 °C               |
| <b>Interfaces</b>            | USB, Bluetooth, HID          |
| <b>L x W x H</b>             | 135.0 mm x 70.0 mm x 24.0 mm |



| TYPE          | Frequency      | Article-No. |
|---------------|----------------|-------------|
| RFID-HS9BT-LF | 125 kHz (LF)   | 556-00701   |
| RFID-HS9BT-HF | 13,56 MHz (HF) | 556-00700   |

Subject to technical changes.

### RFID Readers

#### RFID Desktop Reader

The RFID-DT22 desktop reader for stationary use has been designed to read and write from/to high frequency (HF 13.56 MHz) transponders fitted to HellermannTyton RFID cable ties and accessories. The reader acts as an interface to computer systems and databases. Radio waves transmit the data from the transponder to the reader, so that contactless reading of information is possible. RFID system solutions can make a significant contribution to improving the process reliability and quality in a variety of industries.

#### Features and benefits

- RFID desktop reader
- High frequency (HF – 13.56 MHz)
- For reading and writing of data
- USB, HID interface
- Operator convenience
- Lightweight and handy design



RFID-DT22 – desktop reader for high frequency (HF) transponders.

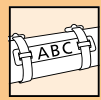
|                              |                               |
|------------------------------|-------------------------------|
| <b>Operating Temperature</b> | -25 °C to +60 °C              |
| <b>Interfaces</b>            | USB, HID                      |
| <b>L x W x H</b>             | 110.0 mm x 110.0 mm x 30.0 mm |



| TYPE         | Frequency      | Article-No. |
|--------------|----------------|-------------|
| RFID-DT22-HF | 13,56 MHz (HF) | 556-00702   |

Subject to technical changes.





### Stainless steel embossing system

#### M-BOSS Compact

M-BOSS Compact is a quiet easy-to-use metal plate embossing printer with a small production footprint. It is simple to install and operate and only needs a standard electrical supply and a PC. Texts are created with TagPrint Pro 4.0. Simply open the easy to use program to create print lists. Improved cooling system now ensures a continuous operation between 8-10 hours. Marker plates are attached to pipes and cables using 4.6 mm width MBT cable ties and a MK9SST hand tool.

#### Features and benefits

- Small and easy to use metal plate embosser
- Quiet embossing mechanism suited to production and office environments
- Embossed characters have been tested to withstand 1.5 million strikes each
- Improved cooling systems allows 8-10 hours continuous printing
- Use Tagprint Pro labelling software with pre-loaded templates to simplify print jobs
- 42 piece character set as standard - can be upgraded to 60 characters  
Letters: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
Numbers: 0 1 2 3 4 5 6 7 8 9  
Symbols: & - / . , '
  - Other symbols available on request

| TYPE           | Article-No. |
|----------------|-------------|
| M-BOSS Compact | 544-20000   |

Subject to technical changes.



A quiet, durable, and easy to use metal plate embossing printer.

|                             |  |
|-----------------------------|--|
| <b>Print Method</b>         | Embossing                                  |
| <b>Power Supply</b>         | AC 110V-240V, 45/65 Hz, 1.5A-3A            |
| <b>Cycle Time</b>           | 1 second per character                     |
| <b>Interfaces</b>           | USB 2.0                                    |
| <b>System Requirements</b>  | MS Windows XP SP3, Vista SP1, Win 7, 8, 10 |
| <b>Dimensions W x H x D</b> | 480 mm x 353 mm x 570 mm                   |
| <b>Weight</b>               | 41.0 kg                                    |

**RoHS** ✓



For problem-free printing we recommend TagPrint Pro, page 92.

### Stainless steel embossing system

#### M-BOSS Compact including Organiser

The M-BOSS Compact with included Organiser system gives the added advantage of a self-contained storage system within the print unit. The organiser is a 10 container carousel storage system that can be programmed to hold either an individual or a pre-defined set of marker plates. This means that users have the flexibility to manage how they work with the printed output. A simple input screen on the top of the machine is used to specify the quantity per container within the carousel. The carousel drawer when opened extends 430 mm from the front of the printer.

#### Features and benefits

- Ability to manage how the printed marker plates are organised
- Carousel system under the printer has 10 removable marker plate containers
- Flexible output means all marker plates or a set amount can be sent to each container
- Carousel system will hold up to 400 markers
- Each container can hold 40 marker plates



A simple solution to managing your printer output.



**1.5 million strikes per character without maintenance**

| TYPE                     | Article-No. |
|--------------------------|-------------|
| M-BOSS Compact Organiser | 544-21000   |

Subject to technical changes.



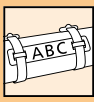
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### Stainless steel printing system

#### M-BOSS Compact Markers

M-BOSS Compact Markers are used in all areas where severe mechanical or chemical conditions occur e.g. offshore industry, marine engineering, petrochemical industry, mining, underground or on radio and cellular masts where mark permanence is critical.

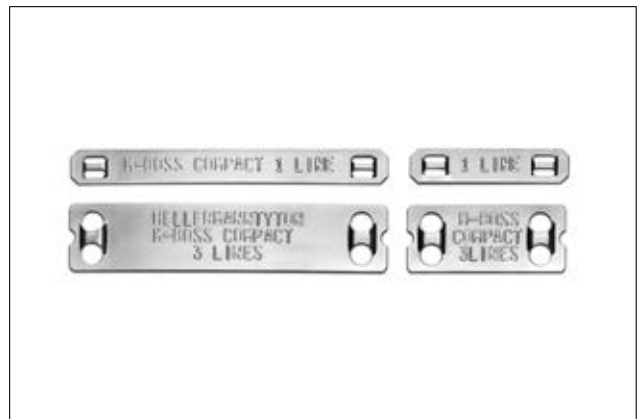
The raised surface of the embossed print ensures that the text remains visible even with dirt, grease, and paint cover the marker. The physical characteristics of the metal and the height of the embossed mark allows users to apply a stiff or metallic brush to the surface and remove excess layers of paint or grease without damaging the integrity of the text.

#### Features and benefits

- Raised marking ensure text visibility even when covered in dust, debris, grease and oil
- Stainless steel grade SS316 is suited for use in harsh environments
- Marker plates are designed for use with stainless steel cable ties with a 4.6 mm strap width
- Apply ties with a MK9SST



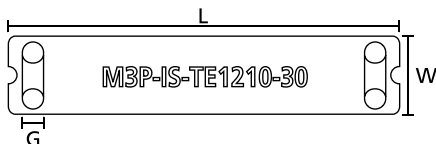
Marker plates designed to survive the harshest environments.



A range of metal plate sizes to suit your needs.

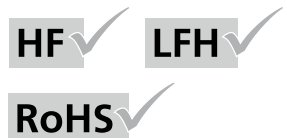


[www.HellermannTyton.com/M-BOSS-rail21](http://www.HellermannTyton.com/M-BOSS-rail21)



MBML

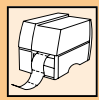
|                              |                         |
|------------------------------|-------------------------|
| <b>MATERIAL</b>              | Stainless Steel (SS316) |
| <b>Operating Temperature</b> | -80 °C to +538 °C       |



| TYPE      | Strap Width max. (G) | Number of lines | Characters per line | Number of characters | Width (W) | Length (L) | Pack Cont. | Article-No. |
|-----------|----------------------|-----------------|---------------------|----------------------|-----------|------------|------------|-------------|
| MBML10X45 | 4.6                  | 1               | 8                   | 8                    | 10.0      | 44.5       | 1,000 pcs. | 544-80101   |
| MBML10X90 | 4.6                  | 1               | 23                  | 23                   | 10.0      | 89.5       | 500 pcs.   | 544-80102   |
| MBML20X45 | 4.6                  | 3               | 8                   | 24                   | 20.0      | 44.5       | 1,000 pcs. | 544-80201   |
| MBML20X90 | 4.6                  | 3               | 23                  | 69                   | 20.0      | 89.5       | 500 pcs.   | 544-80202   |

All dimensions in mm. Subject to technical changes.  
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.





## Labelling software

### TagPrint Pro 4.0

TagPrint Pro 4.0 is the easy-to-use label/marker design and printing software in the HellermannTyton printing world. Compatible with Windows® 7, 8.1 and 10, TagPrint Pro 4.0 delivers an individualised, task-based experience that enables a user to easily develop print templates including bar codes, text and graphics to meet numerous applications. TagPrint Pro 4.0 streamlines labeling production by offering a user full control over the importing or entering of data, advanced security features, the option to group label designs under a single file name or job number, and the ability to batch print to either one or more printers at the same time.

#### Features and benefits

- TagPrint Pro 4.0 runs on Windows 7, 8.1 and 10, allowing full compatibility and error-free operation with the most widely used systems
- Print automation allows one-step printing of label jobs – even multi-label groups – to one or more printers simultaneously
- Visual preview allows users to see label designs before opening them
- Single-user and network-user versions accommodate the needs of any size operation
- Select saved labels visually or by part number
- Convert existing XMT files to the TagPrint data table
- Allows devmode printing to the TT4030 thermal transfer printer, for the ultimate in printer control
- Includes pre-saved designs for all common ANSI/OSHA compliant safety labels and pre-made solar installation labels



*The easy to use software speeds up production of markers, labels and identification tags.*

|                            |  |
|----------------------------|--|
| <b>System Requirements</b> | Operating system: Microsoft Windows 7, 8.1 and 10 (32/64 bit)<br>Random Access Memory: 1.0 GB RAM<br>Hard disk space: 500 MB<br>Microsoft .NET Framework 4 or higher |
|----------------------------|--|



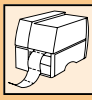
| TYPE                | Article-No. |
|---------------------|-------------|
| TagPrintPro4.0-EMEA | 556-00059   |

Subject to technical changes.



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### Thermal transfer printer

#### TT431, Small to medium volume printing

The TT431 thermal transfer printer is perfect for printing on HellermannTyton materials such as self-adhesive labels, shrinkable tubing and identification tags. Thanks to its low weight and compact construction, the TT431 integrates seamlessly into any workstation. It is easy to use due to its intuitive colour LCD touch display and clear status messages which can be shown in multiple languages. The optional cutter and perforator make this printer ideal for a wide range of applications. 300 dpi resolution ensures that barcodes, warning symbols, logos and text are as sharp as they can be.

#### Features and benefits

- Small to medium volume single sided printing
- Print on HellermannTyton cable markers and labels
- Uses standard ribbons
- Barcodes: standard and 2D
- Print speed up to 150 mm/s
- Adjustable label sensor
- Multiple language selection
- Windows drivers: 32/64 Bit Windows Vista, 7, 8, 10, Windows Server 2008, 2008 R2, 2012, 2012 R2, 2016, 2019



TT431 thermal transfer printer designed for ease of operation.

|                                    |  |
|------------------------------------|--|
| <b>Print Method</b>                | Thermal transfer printing              |
| <b>Print Head Type</b>             | 300 dpi, flat type                     |
| <b>Print Speed</b>                 | up to 150 mm/s                         |
| <b>Max. Print Width</b>            | 105.70 mm                              |
| <b>Label Height Max (metric)</b>   | 4,000 mm                               |
| <b>Interfaces</b>                  | USB 2.0, Ethernet 10/100 Base T, RS232 |
| <b>Supported Barcodes, Printer</b> | Standard and 2D                        |
| <b>Printer Memory</b>              | 256 MB RAM                             |
| <b>Dimensions W x H x D</b>        | 253 mm x 189 mm x 322 mm               |
| <b>Weight</b>                      | 4.0 kg                                 |



[www.HellermannTyton.com/TT431-rail21](http://www.HellermannTyton.com/TT431-rail21)



| TYPE  | Pack Cont. | Article-No. |
|-------|------------|-------------|
| TT431 | 1 pc.      | 556-00400   |

All dimensions in mm. Subject to technical changes.

| TYPE                         | Description                  | Article-No. |
|------------------------------|------------------------------|-------------|
| TT430/TT431 300dpi Printhead | Printhead for TT430/TT431    | 556-00453   |
| TT430/TT431 Print Roller     | Print Roller for TT430/TT431 | 556-00454   |
| S430 Cutter                  | Cutter for TT430/TT431       | 556-00452   |
| P430 Perforator              | Perforator for TT430/TT431   | 556-00456   |
| TT External Reel Holder      | External Reel Holder         | 556-00451   |

Subject to technical changes.



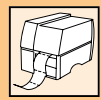
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## Thermal transfer printer

### TT4030, High volume printing

HellermannTyton's premium printer TT4030 is specifically designed for medium and heavy duty industrial applications. The 300 dpi print head fulfils all standard requirements for printing bar codes, warning signs, logos and written information. Optional premium quality accessories such as a perforator and cutter are designed to work seamlessly with the printer and will suit the most demanding needs.

Printing high definition graphics such as 2d barcodes, standard bar codes, numbers and text on adhesive labels, thermo plastics such as heat shrink and cable markers (Tiptags) is easily done.

A colour LCD Touchscreen with modern user interface helps intuitive operation.

Creation of professional looking industrial identification is simplified by the use of HellermannTyton's label creation software TagPrint Pro.

Whether in stand-alone mode, as a PC application or in a network - the robust TT4030 printers can meet every requirement.

#### Features and benefits

- High volume single sided printing
- Print on HellermannTyton heatshrink tubing, cable markers and labels
- Uses standard 300 m ribbons
- Barcodes: standard and 2D
- Print speed up to 300 mm/s (30 mm/s recommended for ladder style products and tubing)
- Multiple language selection
- Windows drivers: 32 / 64 bit for Windows XP, Windows Vista, Windows 7, 8, 10



TT4030 thermal transfer printer for high volumes.

|                                    |  |
|------------------------------------|--|
| <b>Print Method</b>                | Thermal transfer printing                |
| <b>Print Head Type</b>             | 300 dpi, flat type                       |
| <b>Print Speed</b>                 | up to 300mm/s                            |
| <b>Max. Print Width</b>            | 105.70 mm                                |
| <b>Label Height Max (metric)</b>   | 2,000 mm                                 |
| <b>Interfaces</b>                  | RS232 C, USB 2.0, Ethernet 10/100 Base T |
| <b>Supported Barcodes, Printer</b> | Standard, 2D                             |
| <b>Printer Memory</b>              | 256 MB RAM                               |
| <b>Dimensions W x H x D</b>        | 252 mm x 288 mm x 460 mm                 |
| <b>Weight</b>                      | 9.98 kg                                  |



[www.HellermannTyton.com/TT4030-rail21](http://www.HellermannTyton.com/TT4030-rail21)



| TYPE   | Article-No. |
|--------|-------------|
| TT4030 | 556-04037   |

Subject to technical changes.

| TYPE                          | Description                       | Article-No. |
|-------------------------------|-----------------------------------|-------------|
| TT4030 Printhead              | Printhead for TT4030              | 556-04041   |
| Printer Roller TT4030/TT4000+ | Printer Roller for TT4030/TT4000+ | 556-04005   |
| S4030 Cutter                  | S4030 Cutter for TT4030           | 556-04050   |
| P4030 Perforator              | Perforator for TT4030             | 556-04051   |
| TT External Reel Holder       | External Reel Holder              | 556-00451   |

Subject to technical changes.



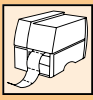
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### Thermal transfer ribbons for

#### Adhesive Labels

The thermal transfer print technology is based on heating up certain dots in the print head. This transfers the ink very precisely from the ribbon onto the surface of the printed material. All HellermannTyton ribbons consist of a special resin composition to maximise print performance. In combination with HellermannTyton printers the ribbons ensure the highest of print quality on all HellermannTyton thermal printable identification materials.

#### Features and benefits

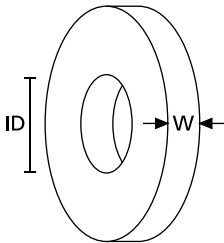
- Thermal transfer ribbons for highest quality and performance of printed labels
- Ribbons are specifically designed to maximise print performance for the recommended material



Ribbons for printing on adhesive labels.



**ID:** The standard inside core diameter is 25.4 mm.



| TYPE            | Recommended Material  | Colour      | Width (W) | Reel Length | Article-No. |
|-----------------|---|-------------|-----------|-------------|-------------|
| TT822OUT 60MM   | 323/823/880/892/1203/1204/1206/1208/1210/1211/1213/1216/1220/1221/1232/1251 | Black (BK)  | 60.0      | 300 m       | 556-00111   |
| TT822OUT 110MM  | 323/823/880/892/1203/1204/1206/1208/1210/1211/1213/1216/1220/1221/1232/1251 | Black (BK)  | 110.0     | 300 m       | 556-00101   |
| TT932DOUT 85MM  | 323/1209  | Black (BK)  | 85.0      | 300 m       | 556-00117   |
| TT932DOUT 110MM | 323/1209  | Black (BK)  | 110.0     | 300 m       | 556-00118   |
| TT122OUT 60MM   | 1220/1221   | Black (BK)  | 60.0      | 300 m       | 556-00060   |
| TT122OUT 110MM  | 1220/1221   | Black (BK)  | 110.0     | 300 m       | 556-00061   |
| TTRR 110        | Labels/1220/1221  | Red (RD)    | 110.0     | 300 m       | 556-00208   |
| TT822OUT8 110MM | TCGT/TULT   | Silver (SR) | 110.0     | 300 m       | 556-00161   |

All dimensions in mm. Subject to technical changes.





## Thermal printer ribbons for

### Heatshrink and Tiptags

The thermal transfer print technology is based on heating up certain dots in the print head. This transfers the ink very precisely from the ribbon onto the surface of the printed material. All HellermannTyton ribbons consist of a special resin composition to maximise print performance. In combination with HellermannTyton printers the ribbons ensure the highest of print quality on all HellermannTyton thermal printable identification materials.

#### Features and benefits

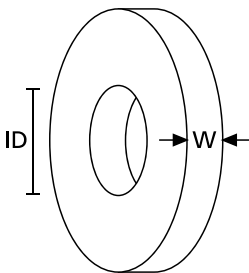
- Thermal transfer ribbons for high quality print results on heat shrink tubing and Tiptag identification tags
- Ribbons are specifically designed to maximize print performance for the recommended material



Ribbons for printing on tubes and Tiptags.



**ID:** The standard inside core diameter is 25.4 mm.



| TYPE                   | Recommended Material       | Colour      | Width (W) | Reel Length | Article-No. |
|------------------------|----------------------------|-------------|-----------|-------------|-------------|
| <b>TT822OUT8 110MM</b> | TCGT/TULT                  | Silver (SR) | 110.0     | 300 m       | 556-00161   |
| <b>TTDTHOUT 40MM</b>   | TCGT/TULT/TLFX/TLFD/TIPTAG | Black (BK)  | 40.0      | 300 m       | 556-00139   |
| <b>TTDTHOUT 60MM</b>   | TCGT/TULT/TLFX/TLFD/TIPTAG | Black (BK)  | 60.0      | 300 m       | 556-00140   |
| <b>TTDTHOUT 100MM</b>  | TCGT/TULT/TLFX/TLFD/TIPTAG | Black (BK)  | 100.0     | 300 m       | 556-00141   |
| <b>TTRC+ 30MM</b>      | TIPTAG PU/TAGPU            | Black (BK)  | 30.0      | 300 m       | 556-00114   |
| <b>TTRC+ 60MM</b>      | TIPTAG PU/TAGPU            | Black (BK)  | 60.0      | 300 m       | 556-00115   |
| <b>TTRC+ 100MM</b>     | TIPTAG PU/TAGPU            | Black (BK)  | 100.0     | 300 m       | 556-00103   |

All dimensions in mm. Subject to technical changes.



Add items to your watchlist!

[www.HT.click/12-97](http://www.HT.click/12-97)



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