
M-BOSS


HellermannTyton

5.1 Label Selection

5.2 Wire and Cable Markers

5.3 Industrial Identification

5.4 Security Labelling

5.5 Hazardous Area Identification

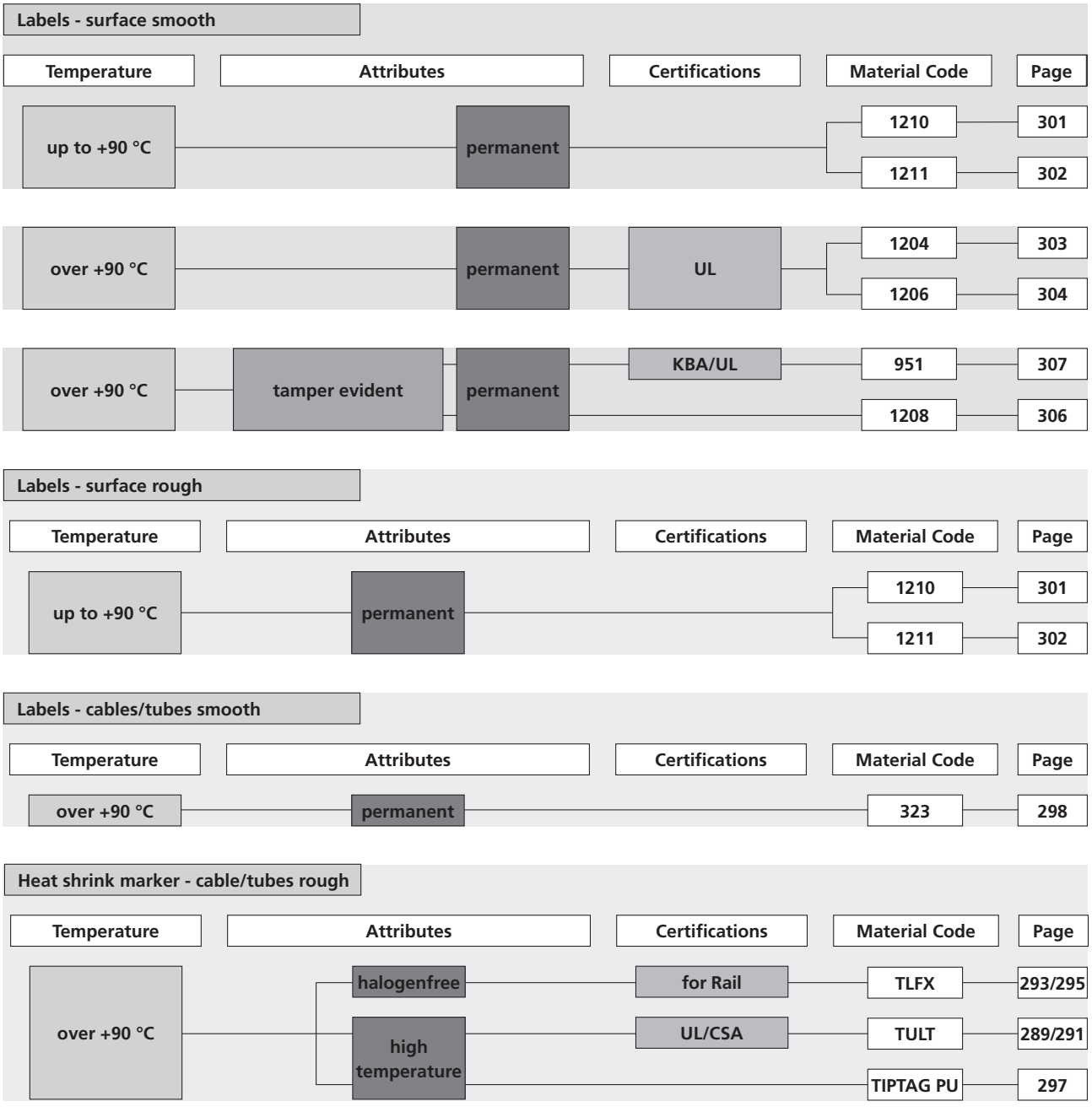
5.6 Printers and Software

Label Selection

Use our flowchart to find the right label or identification material.

Select the object to be identified (flat or curved surface) and its surface quality (smooth or rough). Depending on what you require from our identification systems, you will be guided through the flowchart to the end. Please note that we have highlighted the respective printer technology (thermal transfer, matrix or laser printer, etc.) in colour.

When selecting the material, the general rule is that a higher quality material can of course be used for lower requirements (e.g. a material for operating temperatures of over +90 °C can also be used for temperatures below +90 °C). And you can, of course, always ring us on our usual telephone numbers.



Labelling material for: TT printer

Approvals:
1. UL: Underwriter Laboratories
2. KBA: German Motor Transport Authority
3. CSA: Canadian Standards Authority

Bonding properties of labels

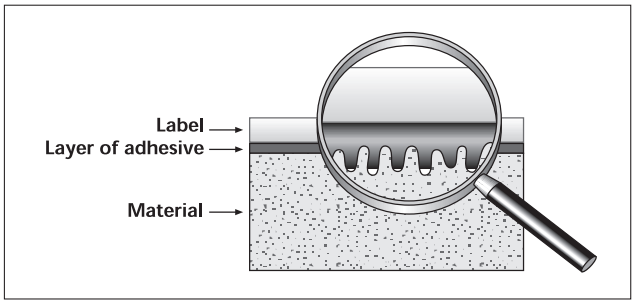
The great variety places where adhesive labels can be used require a broad range of different materials and adhesives. The information given below will explain all the important aspects of this adhesion.

To enable you to make the right choice for your particular application quickly and efficiently, we have set out the most important selection criteria diagrammatically in our flowchart.

Initial and final bonding

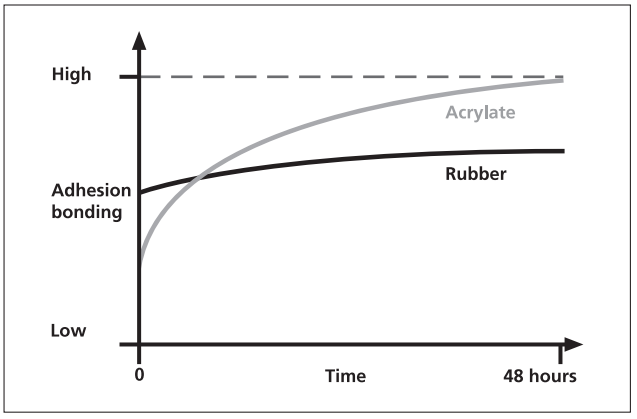
In principle there are two different bonding conditions for labels: The initial bonding which occurs immediately after the label and surface are brought together and the final bonding which represents the permanent bonding status between label and surface following the application, pressing on and curing of the adhesive. The bonding of labels is measured in a defined test process (FINATFTM) and stated in N/mm.

The initial bonding (or tack) describes the bonding ability of the label after it has been applied to the surface, without being pressed down. The final bonding of labels is ultimately affected by the combined factors of material quality, adhesive basis, curing time, pressure applied and surface tension.



Adhesion: powers of attraction between two materials

Adhesion can be described, in principle, as the ability of the adhesive to form a bond with the substrate; the substrate is the surface of the material you need the label applied to. The influencing factors for optimum bonding are the quality of the material's surface and the creep ability of the adhesive. The crucial factor is the proportion of the surface which is actually to be 'wetted' by the adhesive. Most surfaces appear – from a microscopic point of view – like a mountain range with peaks and valleys; i.e. the effective surface is much bigger than that seen by the naked eye. No matter how smooth and flat a substrate may appear to be, there is always some roughness. The better the adhesive flows into the valleys, the more bonding points it can form and the better the adhesive will bond to the surface. A thicker layer of adhesive does allow these uneven areas to be filled in better, but a thicker coat of adhesive has negative effects when labels are processed by machine (e.g. leakage of the adhesive or limited storage life).



Adhesive basis

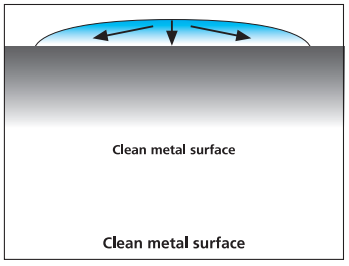
HellermannTyton currently uses acrylate and synthetic rubber as adhesive bases. Acrylate adhesives belong to the family of thermoplastic resins and at normal temperatures they provide high and lasting adhesion. When considering the final bonding of acrylate adhesives, however, it must be noted that the relatively high final bonding is only attained after a certain curing period. This is especially true of labelling materials which may be used for rating plates. Normally you must wait for at least 48 hours in a dry office environment.

Synthetic rubber-based adhesives, unlike acrylate-based adhesives, are distinguished by their high initial bonding. But this adhesive technology does not achieve a final bonding comparable to acrylate adhesives (see graph). Special mixtures of synthetic rubber are used in labelling technology, for example for removable labels, e.g. HellermannTyton material type 265 and 270.

Effect of surface energy on bonding properties

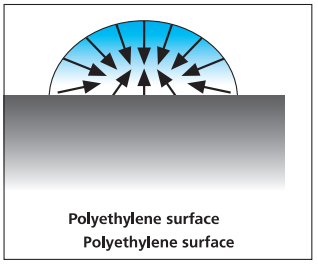
The surface energy (also known as surface tension) is an important factor in the selection of the right adhesive. Because of their chemical formulation, all surfaces have their own polarity and surface tension. The cause of surface tensions is the tendency of liquids to reduce their surface as far as possible, thus to form drops. When a surface which is to be marked (substrate) is wetted with an adhesive, in addition to the adhesive formulation and the surface quality (material, roughness, dampness etc.) the surface energy is also a decisive factor in the maximum attainable bonding force of the adhesive.

As a basic rule, it can be noted that the surface energy of the adhesive must be less than the surface energy of the material to be bonded (substrate). The adhesive should completely wet the substrate and not form any drops.



Flat drops

- High surface energy
- Good wetting
- Good bonding properties



Rounded drops

- Low surface energy
- Poor wetting
- Weak bonding properties

The material combination is the decisive factor

An acrylate-based adhesive is polar and therefore has a relatively high surface energy. Acrylate-based adhesives achieve optimum final bonding on polar substrates (e.g. glass or metals) with a high surface energy.

More critical is the application of labels using acrylate-based adhesives on materials with low surface energy (apolar substrates) such as, for example, silicone, polyethylene and polypropylene. The surface tensions of an acrylate-based adhesive can be reduced for particular applications by the addition of specific additives. However, this step brings with it some drawbacks, for example, a free-flowing adhesive and thus a limited life and storage ability of the labels.

The lower bonding force of low-energy surfaces must therefore be taken into account of when considering the end use.

For optimum marking using acrylate-based adhesive labels, HellermannTyton uses an improved adhesive formulation, which is co-ordinated to the most common materials in industry. In most cases it is possible to guarantee very good application of these labels. In borderline cases, a modified adhesive formulation may be necessary.

Talk to us, we'll be delighted to advise you.

Surface energies of different materials

Material	Surface energy [mN/m]*
Polytetrafluorethylene (PTFE)	18
Silicon (Si)	24
Polyvinyl fluoride (PVF)	25
Natural rubber (CR)	25
Polypropylene (PP)	29
Polyethylene (PE)	35
Polymethyl methacrylate, Acryl (PMMA)	36
Epoxy (EP)	36
Polyoxymethylene, Acetal (POM)	36
Polystyrene (PS)	38
Polyvinyl chloride (PVC)	39
Vinylidene chloride (VC)	40
Polyester (PET)	41
Polyimide (PI)	41
Polyarylsulfone (PAS)	41
Phenolic resin	42
Polyurethane (PUR)	43
Polyamide 6 (PA 6)	43
Polycarbonate (PC)	46
Lead (Pb)	450
Aluminium (Al)	840
Copper (Cu)	1100
Chromium (Cr)	2400
Iron (Fe)	2550

* The values stated are non-binding reference values and for guidance purposes only.

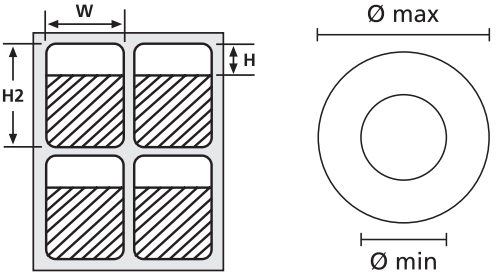
Instructions for using cable markers with protective laminate

Cable markers with protective laminate (also known as cable laminators) have a white or coloured label field which can be written on either manually using a marker pen (see RiteOn) or using a matrix, laser or thermal transfer printer (see Helatag). Depending on the design for the respective type of printing, the title block has a special surface finish to achieve the optimum print anchorage to the label substrate. This results in long-lasting, clear, sharp writing with text, graphics or barcode. A special feature is that the HellermannTyton protective laminate comes with rounded corners. This achieves greater final adhesion of the protective laminate and counteracts any undesirable removal of the label, especially with cables of small diameter and in heavy-duty applications.

When calculating the minimum and maximum diameters, the following formula has been used:

$$\text{Diameter} = \frac{\text{Length of laminate}}{\pi}$$

Pi (π) is the constant 3.14.



Helatag self-laminating labels.

Minimum diameter:

To save time, when wrapping the cable with the cable laminator, a limit of max. 2 windings has been set. The protective laminate length is calculated from: Height H2 – height H

By applying the 'diameter' formula this produces the approx. minimum diameter:

$$\text{Diameter}_{min} = \frac{H2-H}{2*\pi}$$

Example: TAG136LA4 (H = 19.05 mm; H2 = 67.70 mm):

$$\text{Diameter}_{min} = \frac{67.7-19.05}{2*3.14}$$

Maximum diameter:

In this case the minimum requirement is complete coverage of the label field with the protective laminate with a single winding. The length of the protective laminate is again obtained from the formula: H2 – H.

By applying the 'diameter' formula this produces the approx. maximum diameter, which also corresponds to double the minimum diameter:

$$\text{Diameter}_{max} = \frac{H2 - H}{\pi} = 2*\text{Diameter}_{min}$$

Example: TAG136LA4 (H = 19.05 mm; H2 = 67.70 mm)

$$\text{Diameter}_{max} = \frac{67.7 - 19.05}{3.14} = 2*\text{Diameter}_{min}$$

Interesting facts about thermal transfer films (colour ribbons)

The thermal transfer ribbon is perhaps the most important consumable that is used in this printing system - using the right ribbon for a particular application is extremely important.

Not every transfer ribbon is equally suited to any purpose. Depending on the printing requirements (e.g. smudge or scratchproof) to be met, what type of labels will be used, an appropriate thermal transfer ribbon must be used.

Another important consideration for the thermal transfer ribbon is the electrostatic charging which can arise during the printing process. Some transfer ribbons become statically charged during the printing process, which can damage an ESD-sensitive printer head in the long run.

To clarify: The thermal transfer printer head is in physical contact with the back of the thermal transfer ribbon and consists solely of electronic, voltage-sensitive elements, which are known as dots.

These can become damaged when the thermal transfer ribbon causes discharges, which usually results in dot drop-outs. At points where the print head is damaged, no more colour is transferred. This leaves gaps on the label.

Thermal transfer films usually consist of three layers:
- A polyester strip as supporting material
- A protective, gliding backing layer on one side
- A colour layer on the other side.

The colour remains solid at room temperature, but liquefies under the effect of heat. To manufacture the colour ribbons, the polyester ribbon is coated with a special backing and then the respective coloured ink is applied. Print characteristics and bonding ability on various materials depend mainly on the chemical composition of this colour ink.

The main distinguishing feature of thermal transfer ribbons is the so-called quality of the coating. There are two basic types of thermal transfer ribbons:

Wax-resin based films – good synthesis

With this quality of a wax-resin mixture, the good print characteristics of the wax are essentially retained, but the resin content increases mechanical strength. The print image produced has high resistance to heat, solvents, abrasion and scratching and high print quality, e.g. for barcodes. These colour ribbons are suitable for use on synthetic materials. They can be used for most applications at standard print temperatures.

→ TT932DOUT

→ TT822OUT8

Resin-based films – for very heavy-duty purposes

The colour layer at this quality level is based entirely on synthetic resins, developed for industrial applications and extreme conditions. Resin-based colour ribbons guarantee maximum readability, even on the most difficult materials (e.g. barcodes). Depending on the backing material, medium to high print temperatures and slow print speeds are necessary when using these thermal transfer films. In return, a print image is obtained which stands out for its high resistance to abrasion and scratching and great solvent and heat resistance.

→ TT822OUT

→ TTRW

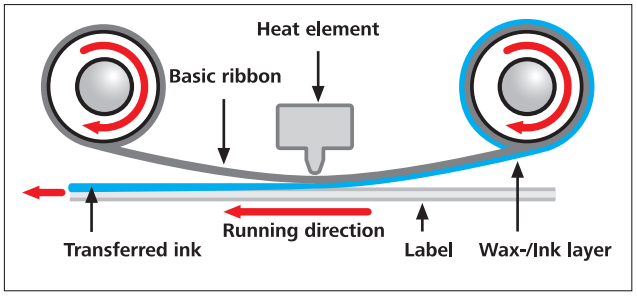
→ TTDTHOUT

Interesting facts about thermal transfer printing

Thermal transfer printing plays a central role, especially in the field of printing variable data, single-proofs and even for small series. This is largely due to the fact that thermal transfer printing is a non-impact printing (NIP) process. Unlike traditional printing processes, such as offset-printing, a NIP printing process does not require a fixed printing block and can therefore print out different data with consistent quality from print to print.

Due to the increasing spread and importance of one and two-dimensional barcodes in goods inventory systems, logistics and in the field of component identification, the market potential of thermal transfer printing is growing all the time. The same is also true of incremental serial numbers, inventory designations, entrance tickets, rating plates, wine labels and many more.

Good print quality, high print speeds and the option of printing almost all backing materials permanently – these are the critical advantages of thermal transfer printing. It's good readability, resistance and abrasion resistance allow thermal transfer printing to be put to use in applications where the print results from laser, inkjet or dot matrix printers are not satisfactory.



Heated dots strike a special colour ribbon, the thermal transfer film, which transfers liquefied colour ink at exactly that point onto the backing material (labels, tubes, rating plates). Our modern printers use what is known as 'thin film technology', in which the very brief liquid phase of the ink produces faster print speeds and better and more precise images than with the 'thick film technology' formerly used.

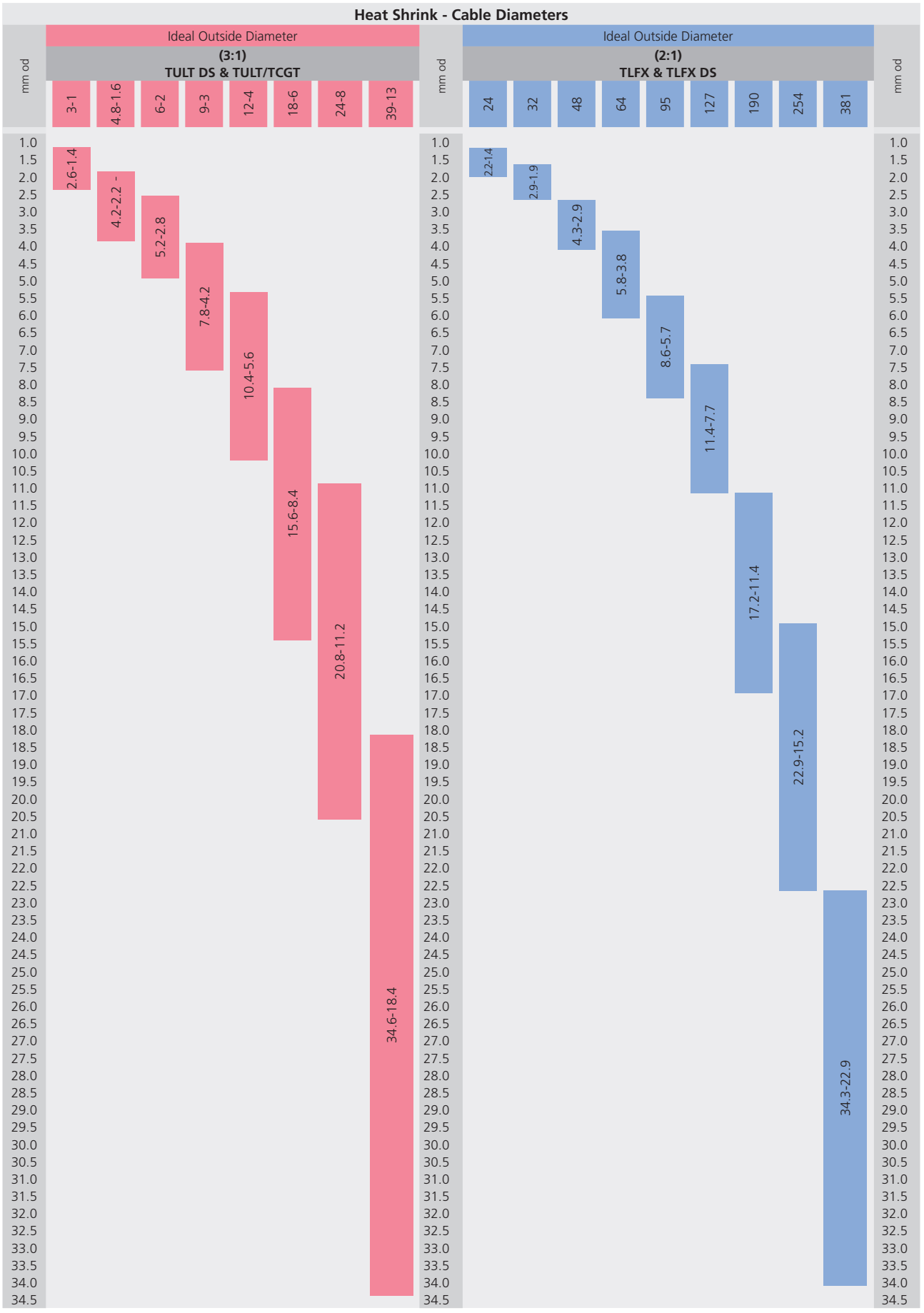
Moreover, the linear orientation of the labels or of the heatshrink tubing makes it possible to print on demand. The printing is then carried out as required. This is especially useful in the production of rating plates in series production.

In thermal transfer printing, the print image is defined by the three components: printer, label material and thermal transfer film (colour ribbon).

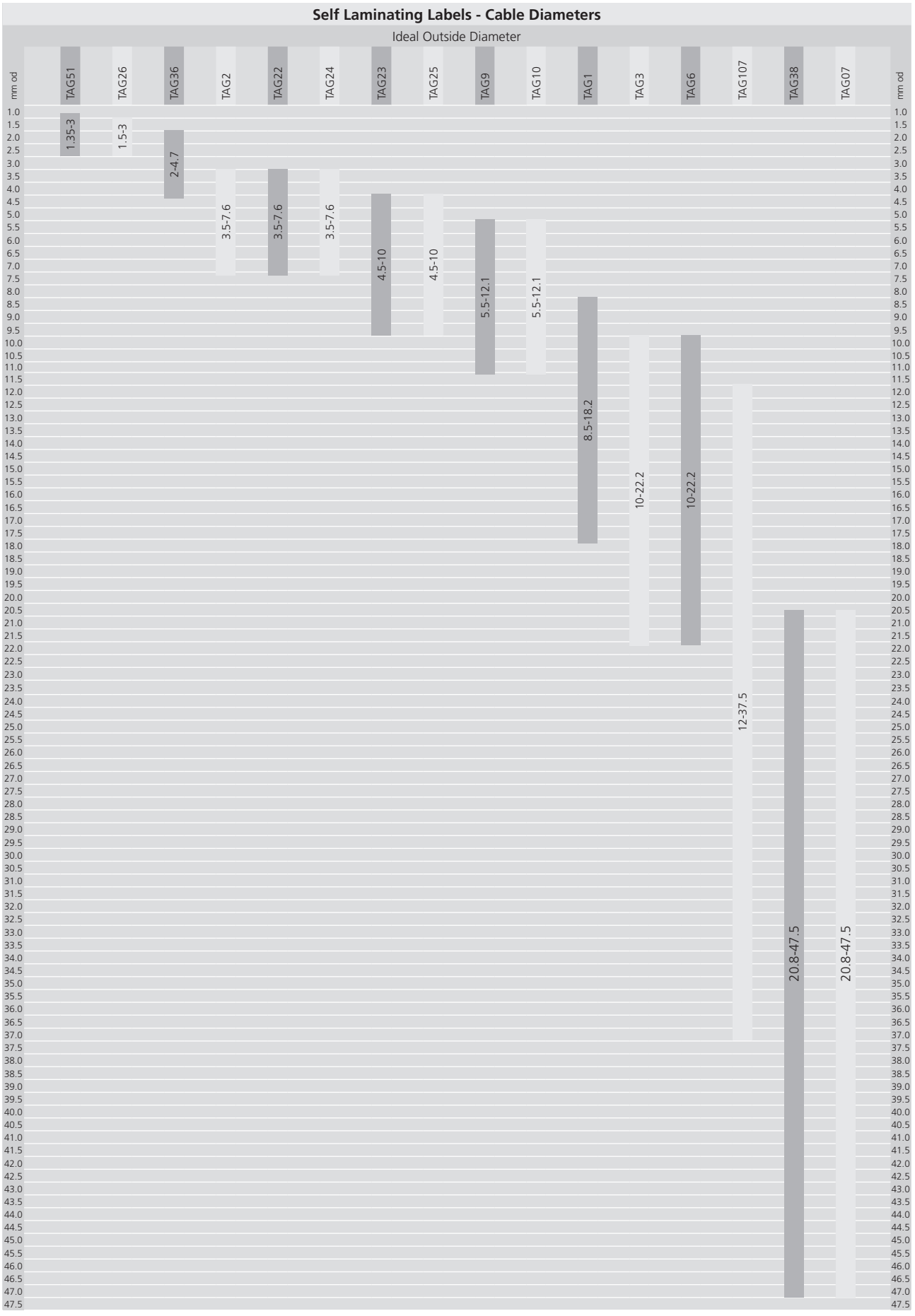
The advantages at a glance:

- High print quality with a resolution of 8-12 dots/mm (12 dots/mm corresponds to approx. 300 dpi)
- Barcode printing in excellent quality, hence good optical readability
- High print speeds of between 30 mm/sec and 150 mm/sec
- Individual graphics capability
- Problem free and rapid realisation of self designed drafts
- Quiet and service friendly printers
- Prints are UV fast and permanent with high definition and contrast and good resistance to mechanical and chemical influences.

Size Selection Guide



Size Selection Guide



Material Specifications

	Thermal Transfer			
Material	**323**	**951**	**1204**	**1206**
Material Description	Polyvinylflouride foil, transparent with white write on area (WHCL). The foil has got an excellent resistance against a wide variety of chemicals and solvents. The material is flame retardant.	Polyester, silver (SR), tamper proof (951A) and Polyester transparent (CL) as overlaminate (951B). Set out of 2 materials.	A silver-matt, highly heat resistant, reverse side aluminised Polyester. Adhesive suitable for critical surfaces.	Type 1206 is a white glossy material suitable for printing with thermal transfer printers. Adhesive suitable for critical surfaces.
Material Application	Self-laminating wire and cable identification for extremely dirty environments.	For automotive and electric industries for tamper proof applications. Particularly suitable as type label according to norms of German Kraftfahrtbundesamt (KBA).	Electro and electronical identification. Permanent identification of components and housings with type labels.	Electro and electronical identification. Permanent identification of components with type labels.
Mech. Material Properties	permanent adhesive, extremely scratch resistant	tamper proof identification, leaves small checkboard traces	permanent adhesive, suitable for critical surfaces	
Thickness of Foil (µm)	25 µm	36 µm, 25 µm	55 µm	50 µm
Operating Temperature	-40 °C to +140 °C	-40 °C to +150 °C		
Curing Temperature	from +10 °C	from 0 °C (label), from +4 °C (laminate)	from 0 °C	
Adhesive	Acrylic			
Material Durability	5 years external weathering (central European climate). Excellent indoor use.	2 years external weathering (central European climate)		
Label Type				
Certification / Specification				
Page	298	307	303	304

	Thermal Transfer		
Material	**1208**	**1210**	**1211**
Material Description	Acetate foil, white (WH), tamper proof	A smooth, gloss white vinyl foil. Adhesive suitable for critical surfaces.	A smooth, gloss yellow Vinyl label. Adhesive suitable for critical surfaces.
Material Application	General identification with need of manipulation detection	Use with IT identification ties, Q-tags and AT/IMP plates.	Use with IT identification ties and AT/IMP plates.
Mech. Material Properties	tamper proof, material will easily fragment if removed	permanent adhesive, suitable for critical surfaces	
Thickness of Foil (µm)	56 µm	83 µm	
Operating Temperature	-40 °C to +150 °C	-20 °C to +80 °C	
Curing Temperature	from +4 °C	from +5 °C	
Adhesive	Acrylic		
Material Durability	2 years external weathering (central European climate)		
Label Type			
Page	306	301	302

 Plain labels

 Self-laminating labels

Heat-shrinkable wire identification, thermal transfer

- **TULT - 3:1 UL-Recognized Tubing**

TULT is a UL recognized 3:1 heatshrink material supplied as a continuous tube and printable on both sides. The supplied accessories allow users to either perforate the tubing at pre-determined lengths (P4000), or fully sever the markers (S4000) whilst printing with the TrakMark DS or TT4000+ printer.

Print with HellermannTyton's premium range of thermal printers and ribbons.

Printers: TrakMark DS, TT4000+, and TT430

Ribbons: TTRC+, TTDTHOUT, TTRW, TT822OUT8

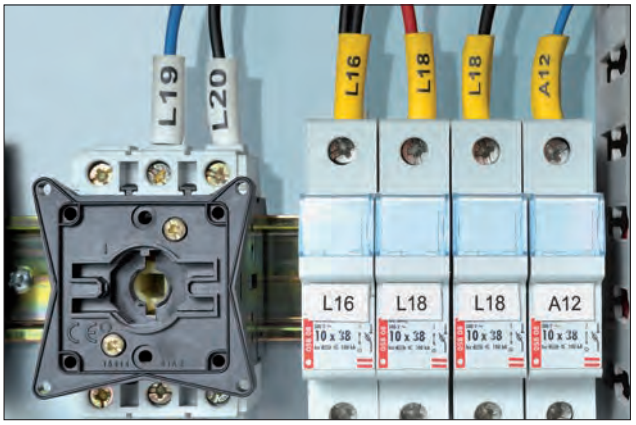
Accessories for TrakMark DS and TT4000+:
Perforator (P4000), Cutter (S4000)

Accessories for TT430: Cutter (S430)

Software: TagPrint Pro

Features and Benefits

- Shrink ratio 3:1
- Available in Black, Blue, Red, White, and Yellow
- Cable range from 39mm to 1mm
- Good mechanical strength and resistance to organic solvents and chemicals
- Highly flexible
- Fulfils UL224 VW-1 and CSA requirements
- Delivery in convenient storage boxes
- Easy label design with TagPrint Pro



TULT – 5 colours of UL recognised printable tube to cover a wide range of diameters.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+90 °C
Shrink Ratio	3:1
Recommended Ribbon Type	TTRC+, TTDTHOUT, TTRW, TT822OUT8
Specifications	CSA, UL-Recognized

RoHS

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Colour	Article-No.
TULT3-1BK	3.0	1.0	0.60	176 m	Black (BK)	553-40300
TULT3-1BU	3.0	1.0	0.60	176 m	Blue (BU)	553-40306
TULT3-1RD	3.0	1.0	0.60	176 m	Red (RD)	553-40302
TULT3-1WH	3.0	1.0	0.60	176 m	White (WH)	553-40309
TULT3-1YE	3.0	1.0	0.60	176 m	Yellow (YE)	553-40304
TULT4.8-1.6BK	4.8	1.6	0.65	110 m	Black (BK)	553-40480
TULT4.8-1.6BU	4.8	1.6	0.65	110 m	Blue (BU)	553-40486
TULT4.8-1.6RD	4.8	1.6	0.65	110 m	Red (RD)	553-40482
TULT4.8-1.6WH	4.8	1.6	0.65	110 m	White (WH)	553-40489
TULT4.8-1.6YE	4.8	1.6	0.65	110 m	Yellow (YE)	553-40484

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

For product specific approvals and specifications please refer to the Appendix.

Heat-shrinkable wire identification, thermal transfer

- **TULT - 3:1 UL-Recognized Tubing**

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Colour	Article-No.
TULT6-2BK	6.0	2.0	0.70	110 m	Black (BK)	553-40600
TULT6-2BU	6.0	2.0	0.70	110 m	Blue (BU)	553-40606
TULT6-2RD	6.0	2.0	0.70	110 m	Red (RD)	553-40602
TULT6-2WH	6.0	2.0	0.70	110 m	White (WH)	553-40609
TULT6-2YE	6.0	2.0	0.70	110 m	Yellow (YE)	553-40604
TULT9-3BK	9.0	3.0	0.80	72 m	Black (BK)	553-40900
TULT9-3BU	9.0	3.0	0.80	72 m	Blue (BU)	553-40906
TULT9-3RD	9.0	3.0	0.80	72 m	Red (RD)	553-40902
TULT9-3WH	9.0	3.0	0.80	72 m	White (WH)	553-40909
TULT9-3YE	9.0	3.0	0.80	72 m	Yellow (YE)	553-40904
TULT12-4BK	12.0	4.0	0.85	54 m	Black (BK)	553-41200
TULT12-4BU	12.0	4.0	0.85	54 m	Blue (BU)	553-41206
TULT12-4RD	12.0	4.0	0.85	54 m	Red (RD)	553-41202
TULT12-4WH	12.0	4.0	0.85	54 m	White (WH)	553-41209
TULT12-4YE	12.0	4.0	0.85	54 m	Yellow (YE)	553-41204
TULT18-6BK	18.0	6.0	1.00	26 m	Black (BK)	553-41800
TULT18-6BU	18.0	6.0	1.00	26 m	Blue (BU)	553-41806
TULT18-6RD	18.0	6.0	1.00	26 m	Red (RD)	553-41802
TULT18-6WH	18.0	6.0	1.00	26 m	White (WH)	553-41809
TULT18-6YE	18.0	6.0	1.00	26 m	Yellow (YE)	553-41804
TULT24-8BK	24.0	8.0	1.20	26 m	Black (BK)	553-42400
TULT24-8BU	24.0	8.0	1.20	26 m	Blue (BU)	553-42406
TULT24-8RD	24.0	8.0	1.20	26 m	Red (RD)	553-42402
TULT24-8WH	24.0	8.0	1.20	26 m	White (WH)	553-42409
TULT24-8YE	24.0	8.0	1.20	26 m	Yellow (YE)	553-42404
TULT39-13BK	39.0	13.0	1.25	10 m	Black (BK)	553-43900
TULT39-13BU	39.0	13.0	1.25	10 m	Blue (BU)	553-43906
TULT39-13RD	39.0	13.0	1.25	10 m	Red (RD)	553-43902
TULT39-13WH	39.0	13.0	1.25	10 m	White (WH)	553-43909
TULT39-13YE	39.0	13.0	1.25	10 m	Yellow (YE)	553-43904

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

For product specific approvals and specifications please refer to the Appendix.

Heat-shrinkable wire identification, thermal transfer

- **TULT DS - 3:1 'Ladder Style' Sleeves**

TULT DS is a 3:1 heatshrink material pre-cut and formatted onto a convenient 'ladder' system that allows printing on both sides of the marker. The user can easily choose and pick the required marker.

Print with HellermannTyton's premium range of thermal printers and ribbons.

Printers: TrakMark DS, TT4000+, and TT430

Ribbons: TTDTHOUT

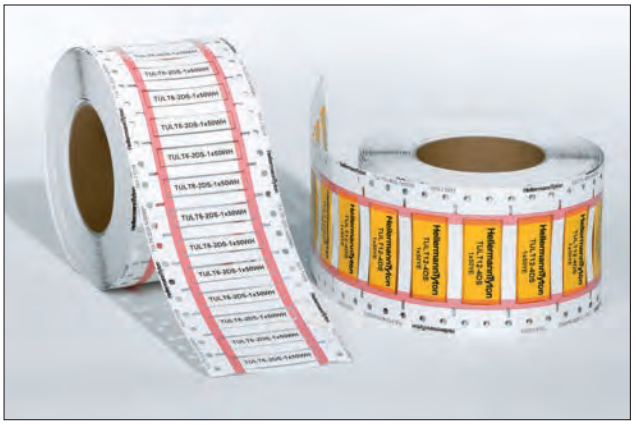
Accessories for TrakMark DS and TT4000+:
Perforator (P4000), Cutter (S4000)

Accessories for TT430: Cutter (S430)

Software: TagPrint Pro

Features and Benefits

- Shrink ratio 3:1
- 50mm, 25mm, and 16mm pre-cut marker options as standard, other lengths available on request
- Available in White and Yellow
- Meets MIL-STD 202G Method 215 print requirements using TTDTHOUT ribbon
- Fulfils UL224 VW-1 and CSA requirements
- Fulfils LUL C3349 requirements
- Good mechanical strength and resistance to organic solvents and chemicals
- Highly flexible
- Delivery in convenient storage boxes
- Easy label design with TagPrint Pro



TULT DS ladder style shrinkable tubing in yellow and white.

MATERIAL	Polyolefin, cross-linked (PO-X)	
Operating Temperature	-55 °C to +135 °C	
Min. Shrink Temperature	+90 °C	
Shrink Ratio	3:1	
Recommended Ribbon Type	TTDTHOUT	
Specifications	MIL-STD-202G Method 215K, UL-Recognized	UL-Recognized

RoHS

TYPE	Supplied Ø D min.	Recov. Ø d max.	Length (L)	Wall (WT)	Pack Cont.	Colour	Article-No.
TULT2.4-0.8DS-3x16WH	2.4	0.8	16.0	0.58	3000 pcs.	White (WH)	553-71004
TULT2.4-0.8DS-3x16YE	2.4	0.8	16.0	0.58	3000 pcs.	Yellow (YE)	553-71005
TULT2.4-0.8DS-2x25WH	2.4	0.8	25.0	0.58	2000 pcs.	White (WH)	553-71002
TULT2.4-0.8DS-2x25YE	2.4	0.8	25.0	0.58	2000 pcs.	Yellow (YE)	553-71003
TULT2.4-0.8DS-1x50WH	2.4	0.8	50.0	0.58	1000 pcs.	White (WH)	553-71000
TULT2.4-0.8DS-1x50YE	2.4	0.8	50.0	0.58	1000 pcs.	Yellow (YE)	553-71001
TULT3-1DS-3x16WH	3.0	1.0	16.0	0.60	3000 pcs.	White (WH)	553-71010
TULT3-1DS-3x16YE	3.0	1.0	16.0	0.60	3000 pcs.	Yellow (YE)	553-71011
TULT3-1DS-2x25WH	3.0	1.0	25.0	0.60	2000 pcs.	White (WH)	553-71008
TULT3-1DS-2x25YE	3.0	1.0	25.0	0.60	2000 pcs.	Yellow (YE)	553-71009
TULT3-1DS-1x50WH	3.0	1.0	50.0	0.60	1000 pcs.	White (WH)	553-71006
TULT3-1DS-1x50YE	3.0	1.0	50.0	0.60	1000 pcs.	Yellow (YE)	553-71007
TULT4.8-1.6DS-3x16WH	4.8	1.6	16.0	0.65	3000 pcs.	White (WH)	553-71016
TULT4.8-1.6DS-3x16YE	4.8	1.6	16.0	0.65	3000 pcs.	Yellow (YE)	553-71017
TULT4.8-1.6DS-2x25WH	4.8	1.6	25.0	0.65	2000 pcs.	White (WH)	553-71014

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

Heat-shrinkable wire identification, thermal transfer

- **TULT DS - 3:1 'Ladder Style' Sleeves**

TYPE	Supplied Ø D min.	Recov. Ø d max.	Length (L)	Wall (WT)	Pack Cont.	Colour	Article-No.
TULT4.8-1.6DS-2x25YE	4.8	1.6	25.0	0.65	2000 pcs.	Yellow (YE)	553-71015
TULT4.8-1.6DS-1x50WH	4.8	1.6	50.0	0.65	1000 pcs.	White (WH)	553-71012
TULT4.8-1.6DS-1x50YE	4.8	1.6	50.0	0.65	1000 pcs.	Yellow (YE)	553-71013
TULT6-2DS-3x16WH	6.0	2.0	16.0	0.70	3000 pcs.	White (WH)	553-71022
TULT6-2DS-3x16YE	6.0	2.0	16.0	0.70	3000 pcs.	Yellow (YE)	553-71023
TULT6-2DS-2x25WH	6.0	2.0	25.0	0.70	2000 pcs.	White (WH)	553-71020
TULT6-2DS-2x25YE	6.0	2.0	25.0	0.70	2000 pcs.	Yellow (YE)	553-71021
TULT6-2DS-1x50WH	6.0	2.0	50.0	0.70	1000 pcs.	White (WH)	553-71018
TULT6-2DS-1x50YE	6.0	2.0	50.0	0.70	1000 pcs.	Yellow (YE)	553-71019
TULT9-3DS-3x16WH	9.0	3.0	16.0	0.80	1500 pcs.	White (WH)	553-71028
TULT9-3DS-3x16YE	9.0	3.0	16.0	0.80	1500 pcs.	Yellow (YE)	553-71029
TULT9-3DS-2x25WH	9.0	3.0	25.0	0.80	1000 pcs.	White (WH)	553-71026
TULT9-3DS-2x25YE	9.0	3.0	25.0	0.80	1000 pcs.	Yellow (YE)	553-71027
TULT9-3DS-1x50WH	9.0	3.0	50.0	0.80	500 pcs.	White (WH)	553-71024
TULT9-3DS-1x50YE	9.0	3.0	50.0	0.80	500 pcs.	Yellow (YE)	553-71025
TULT12-4DS-3x16WH	12.0	4.0	16.0	0.85	1500 pcs.	White (WH)	553-71034
TULT12-4DS-3x16YE	12.0	4.0	16.0	0.85	1500 pcs.	Yellow (YE)	553-71035
TULT12-4DS-2x25WH	12.0	4.0	25.0	0.85	1000 pcs.	White (WH)	553-71032
TULT12-4DS-2x25YE	12.0	4.0	25.0	0.85	1000 pcs.	Yellow (YE)	553-71033
TULT12-4DS-1x50WH	12.0	4.0	50.0	0.85	500 pcs.	White (WH)	553-71030
TULT12-4DS-1x50YE	12.0	4.0	50.0	0.85	500 pcs.	Yellow (YE)	553-71031
TULT18-6DS-3x16WH	18.0	6.0	16.0	1.00	1500 pcs.	White (WH)	553-71040
TULT18-6DS-3x16YE	18.0	6.0	16.0	1.00	1500 pcs.	Yellow (YE)	553-71041
TULT18-6DS-2x25WH	18.0	6.0	25.0	1.00	1000 pcs.	White (WH)	553-71038
TULT18-6DS-2x25YE	18.0	6.0	25.0	1.00	1000 pcs.	Yellow (YE)	553-71039
TULT18-6DS-1x50WH	18.0	6.0	50.0	1.00	500 pcs.	White (WH)	553-71036
TULT18-6DS-1x50YE	18.0	6.0	50.0	1.00	500 pcs.	Yellow (YE)	553-71037
TULT24-8DS-3x16WH	24.0	8.0	16.0	1.20	750 pcs.	White (WH)	553-71046
TULT24-8DS-3x16YE	24.0	8.0	16.0	1.20	750 pcs.	Yellow (YE)	553-71047
TULT24-8DS-2x25WH	24.0	8.0	25.0	1.20	500 pcs.	White (WH)	553-71044
TULT24-8DS-2x25YE	24.0	8.0	25.0	1.20	500 pcs.	Yellow (YE)	553-71045
TULT24-8DS-1x50WH	24.0	8.0	50.0	1.20	250 pcs.	White (WH)	553-71042
TULT24-8DS-1x50YE	24.0	8.0	50.0	1.20	250 pcs.	Yellow (YE)	553-71043
TULT39-13DS-3x16WH	39.0	13.0	16.0	1.25	750 pcs.	White (WH)	553-71052
TULT39-13DS-3x16YE	39.0	13.0	16.0	1.25	750 pcs.	Yellow (YE)	553-71053
TULT39-13DS-2x25WH	39.0	13.0	25.0	1.25	500 pcs.	White (WH)	553-71050
TULT39-13DS-2x25YE	39.0	13.0	25.0	1.25	500 pcs.	Yellow (YE)	553-71051
TULT39-13DS-1x50WH	39.0	13.0	50.0	1.25	250 pcs.	White (WH)	553-71048
TULT39-13DS-1x50YE	39.0	13.0	50.0	1.25	250 pcs.	Yellow (YE)	553-71049

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

Low fire hazard heat-shrinkable wire identification, thermal transfer

- **TLFX - 2:1 LFH Tubing**

TLFX is a rail approved 2:1 heatshrink material supplied as a continuous tube and printable on both sides. The supplied accessories allow users to either perforate the tubing at pre-determined lengths (P4000), or fully sever the markers (S4000) whilst printing with the TrakMark DS or TT4000+ printer.

Print with HellermannTyton's premium range of thermal printers and ribbons.

Printers: TrakMark DS, TT4000+, and TT430

Ribbons: TTDTHOUT, TTRC+

Accessories for TrakMark DS and TT4000+:
Perforator (P4000), Cutter (S4000)

Accessories for TT430: Cutter (S430)

Software: TagPrint Pro

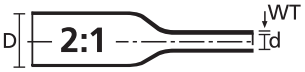
Features and Benefits

- Shrink ratio 2:1
- Available in White and Yellow
- Cable range 50.8mm to 1.2mm
- Halogen Free
- Low smoke propagation, density and toxicity
- High Oxygen Index value (38%)
- Fulfils highest standard rail flammability norms
- Delivery in convenient storage boxes
- Easy label design with TagPrint Pro

TLFX - high performance halogen free heatshrink tubing.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +105 °C
Min. Shrink Temperature	+100 °C
Shrink Ratio	2:1
Recommended Ribbon Type	TTDTHOUT, TTRC+
Specifications	BS-6853:1999, BS-EN ISO 4589-2, DIN 53438-3: 1984, DIN 5510-2, EN45545-2: 2013 (R22 & R23, HL1, HL2, HL3), EN ISO 11925-2: 2002, NF F 16-101, NF X 70-100-1: 2006, NF X 70-100-2: 2006, UNI CEI 11170-3

HF ✓ LFH ✓ RoHS ✓



TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack 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

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

BS DIN EN NF F UNI CEI

For product specific approvals and specifications please refer to the Appendix.

Low fire hazard heat-shrinkable wire identification, thermal transfer

- **TLFX - 2:1 LFH Tubing**

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Colour	Article-No.
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
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.

BS DIN EN NF F UNI CEI

For product specific approvals and specifications please refer to the Appendix.

Low fire hazard heat-shrinkable wire identification, thermal transfer

- **TLFX DS - 2:1 LFH 'Ladder Style' Sleeves**

TLFX DS is a rail approved 2:1 heatshrink material pre-cut and formatted onto a convenient 'ladder' system that allows printing on both sides of the marker. The user can easily choose and pick the required marker.

Print with HellermannTyton's premium range of thermal printers and ribbons.

Printers: TrakMark DS, TT4000+ and TT430

Ribbons: TTDTHOUT

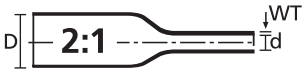
Accessories for TrakMark DS and TT4000+:
Perforator (P4000), Cutter (S4000)

Accessories for TT430: Cutter (S430)

Software: TagPrint Pro

Features and Benefits

- Shrink ratio 2:1
- 50mm, 25mm, and 16mm pre-cut marker options as standard, other lengths available on request
- Available in White and Yellow
- Cable range 38.1mm to 1.2mm
- Halogen Free
- Low smoke propagation, density and toxicity
- High Oxygen Index value (38%)
- Fulfils highest standard rail flammability norms
- Delivery in convenient storage boxes
- Easy label design with TagPrint Pro



TLFX DS ladder style shrinkable tubing in yellow and white.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +105 °C
Min. Shrink Temperature	+100 °C
Shrink Ratio	2:1
Recommended Ribbon Type	TTDTHOUT
Specifications	ASTM E 662, BS-6853:1999, BS-EN ISO 4589-2, DIN 53438-3: 1984, DIN 5510-2, EN45545-2: 2013 (R22 & R23, HL1, HL2, HL3), EN ISO 11925-2: 2010, NF F 16-101, NF X 70-100-1: 2006, NF X 70-100-2: 2006, UNI CEI 11170-3

HF ✓ LFH ✓ RoHS ✓

TYPE	Supplied Ø D min.	Recov. Ø d max.	Length (L)	Wall (WT)	Pack Cont.	Colour	Article-No.
TLFX24DS-3x16WH	2.4	1.2	16.0	0.57	15000 pcs.	White (WH)	553-60038
TLFX24DS-3x16YE	2.4	1.2	16.0	0.57	15000 pcs.	Yellow (YE)	553-60039
TLFX24DS-2x25WH	2.4	1.2	25.0	0.57	10000 pcs.	White (WH)	553-60020
TLFX24DS-2x25YE	2.4	1.2	25.0	0.57	10000 pcs.	Yellow (YE)	553-60029
TLFX24DS-1x50WH	2.4	1.2	50.0	0.57	5000 pcs.	White (WH)	553-60000
TLFX24DS-1x50YE	2.4	1.2	50.0	0.57	5000 pcs.	Yellow (YE)	553-60010
TLFX32DS-3x16WH	3.2	1.6	16.0	0.58	15000 pcs.	White (WH)	553-60040
TLFX32DS-3x16YE	3.2	1.6	16.0	0.58	15000 pcs.	Yellow (YE)	553-60041
TLFX32DS-2x25WH	3.2	1.6	25.0	0.58	10000 pcs.	White (WH)	553-60021
TLFX32DS-2x25YE	3.2	1.6	25.0	0.58	10000 pcs.	Yellow (YE)	553-60030
TLFX32DS-1x50WH	3.2	1.6	50.0	0.58	5000 pcs.	White (WH)	553-60001
TLFX32DS-1x50YE	3.2	1.6	50.0	0.58	5000 pcs.	Yellow (YE)	553-60011
TLFX48DS-3x16WH	4.8	2.4	16.0	0.61	15000 pcs.	White (WH)	553-60042
TLFX48DS-3x16YE	4.8	2.4	16.0	0.61	15000 pcs.	Yellow (YE)	553-60043
TLFX48DS-2x25WH	4.8	2.4	25.0	0.61	10000 pcs.	White (WH)	553-60022

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

BS DIN EN NF F UNI CEI

For product specific approvals and specifications please refer to the Appendix.

Low fire hazard heat-shrinkable wire identification, thermal transfer

- **TLFX DS - 2:1 LFH 'Ladder Style' Sleeves**

TYPE	Supplied Ø D min.	Recov. Ø d max.	Length (L)	Wall (WT)	Pack Cont.	Colour	Article-No.
TLFX48DS-2x25YE	4.8	2.4	25.0	0.61	10000 pcs.	Yellow (YE)	553-60031
TLFX48DS-1x50WH	4.8	2.4	50.0	0.61	5000 pcs.	White (WH)	553-60002
TLFX48DS-1x50YE	4.8	2.4	50.0	0.61	5000 pcs.	Yellow (YE)	553-60012
TLFX64DS-3x16WH	6.4	3.2	16.0	0.61	9000 pcs.	White (WH)	553-60044
TLFX64DS-3x16YE	6.4	3.2	16.0	0.61	9000 pcs.	Yellow (YE)	553-60045
TLFX64DS-2x25WH	6.4	3.2	25.0	0.61	6000 pcs.	White (WH)	553-60023
TLFX64DS-2x25YE	6.4	3.2	25.0	0.61	6000 pcs.	Yellow (YE)	553-60032
TLFX64DS-1x50WH	6.4	3.2	50.0	0.61	3000 pcs.	White (WH)	553-60003
TLFX64DS-1x50YE	6.4	3.2	50.0	0.61	3000 pcs.	Yellow (YE)	553-60013
TLFX95DS-3x16WH	9.5	4.8	16.0	0.66	7500 pcs.	White (WH)	553-60046
TLFX95DS-3x16YE	9.5	4.8	16.0	0.66	7500 pcs.	Yellow (YE)	553-60047
TLFX95DS-2x25WH	9.5	4.8	25.0	0.66	5000 pcs.	White (WH)	553-60024
TLFX95DS-2x25YE	9.5	4.8	25.0	0.66	5000 pcs.	Yellow (YE)	553-60033
TLFX95DS-1x50WH	9.5	4.8	50.0	0.66	2500 pcs.	White (WH)	553-60004
TLFX95DS-1x50YE	9.5	4.8	50.0	0.66	2500 pcs.	Yellow (YE)	553-60014
TLFX127DS-3x16WH	12.7	6.4	16.0	0.68	4500 pcs.	White (WH)	553-60048
TLFX127DS-3x16YE	12.7	6.4	16.0	0.68	4500 pcs.	Yellow (YE)	553-60049
TLFX127DS-2x25WH	12.7	6.4	25.0	0.68	3000 pcs.	White (WH)	553-60025
TLFX127DS-2x25YE	12.7	6.4	25.0	0.68	3000 pcs.	Yellow (YE)	553-60034
TLFX127DS-1x50WH	12.7	6.4	50.0	0.68	1500 pcs.	White (WH)	553-60005
TLFX127DS-1x50YE	12.7	6.4	50.0	0.68	1500 pcs.	Yellow (YE)	553-60015
TLFX190DS-3x16WH	19.0	9.5	16.0	0.69	4500 pcs.	White (WH)	553-60050
TLFX190DS-3x16YE	19.0	9.5	16.0	0.69	4500 pcs.	Yellow (YE)	553-60051
TLFX190DS-2x25WH	19.0	9.5	25.0	0.69	3000 pcs.	White (WH)	553-60026
TLFX190DS-2x25YE	19.0	9.5	25.0	0.69	3000 pcs.	Yellow (YE)	553-60035
TLFX190DS-1x50WH	19.0	9.5	50.0	0.69	1500 pcs.	White (WH)	553-60006
TLFX190DS-1x50YE	19.0	9.5	50.0	0.69	1500 pcs.	Yellow (YE)	553-60016
TLFX254DS-3x16WH	25.4	12.7	16.0	0.69	3000 pcs.	White (WH)	553-60052
TLFX254DS-3x16YE	25.4	12.7	16.0	0.69	3000 pcs.	Yellow (YE)	553-60053
TLFX254DS-2x25WH	25.4	12.7	25.0	0.69	2000 pcs.	White (WH)	553-60027
TLFX254DS-2x25YE	25.4	12.7	25.0	0.69	2000 pcs.	Yellow (YE)	553-60036
TLFX254DS-1x50WH	25.4	12.7	50.0	0.69	1000 pcs.	White (WH)	553-60007
TLFX254DS-1x50YE	25.4	12.7	50.0	0.69	1000 pcs.	Yellow (YE)	553-60017
TLFX381DS-3x16WH	38.1	19.0	16.0	0.70	1500 pcs.	White (WH)	553-60054
TLFX381DS-3x16YE	38.1	19.0	16.0	0.70	1500 pcs.	Yellow (YE)	553-60055
TLFX381DS-2x25WH	38.1	19.0	25.0	0.70	1000 pcs.	White (WH)	553-60028
TLFX381DS-2x25YE	38.1	19.0	25.0	0.70	1000 pcs.	Yellow (YE)	553-60037
TLFX381DS-1x50WH	38.1	19.0	50.0	0.70	500 pcs.	White (WH)	553-60008
TLFX381DS-1x50YE	38.1	19.0	50.0	0.70	500 pcs.	Yellow (YE)	553-60018

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

BS DIN EN NF F UNI CEI

For product specific approvals and specifications please refer to the Appendix.

Identification tags for cable bundle, thermal transfer

- **TIPTAG PU for high temperature**

Secured to bundles using Cable Ties up to T50R width maximum.

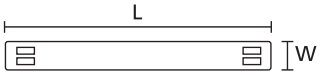
Features and Benefits

- Identification tags TIPTAG, Polyurethane
- Very tough and flexible material
- For bigger cable bundles and wires
- For cable ties up to 4.7 mm width
- Print with TT4000+ and TT430 for best results
- Delivery on reel, perforated
- Flame retardant
- Weather resistant
- Abrasion resistant
- Good resistance to chemicals

The printed mark has a tattoo-like permanency.

MATERIAL	Polyurethane (PUR)	
Operating Temperature	-65 °C to +120 °C, intermittent +150 °C	
Flammability	self-extin-guishing	self-extinguishing, UL94 V0 (3mm)
Recommended Ribbon Type	TTRC+	

RoHS



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

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

Self-laminating labels, thermal transfer

- **Material 323 (White-Clear) high temperature**

The specially formulated adhesive labels give the highest quality print clarity when printed on thermal transfer printers. The range of materials and ribbons have been developed to suit the needs of most users. Designing and printing labels is simple and users can quickly print out professional labels in a matter of moments when using TagPrint Pro labelling software.

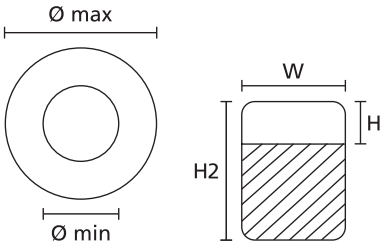
Features and Benefits

- High temperature self-laminating labels with a white inscription field
- Survives 5 years external weathering in central European climate
- Material is UL94 V0
- Excellent print performance using TT932DOUT ribbon
- Print with TT4000+, TT430 for best results
- Easy label design with TagPrint Pro
- Yellow and other colours available on request

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

MATERIAL	Type 323, Polyvinylidene Fluoride, white/transp. (WH/CL), yellow/transp. (YE/CL)
Operating Temperature	-40 °C to +140 °C
Curing Temperature	from +10 °C
Adhesive	Acrylic
Thickness of Foil (µm)	25 µm
Chem. Material Properties	Excellent resistance against water, UV radiation, weather influence and solvents based on petroleum
Recommended Ribbon Type	TT932DOUT

RoHS



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	5000	White (WH), Transparent (CL)	596-51320
TAG26TD6-323-WHCL	1.5	3.0	12.7	9.5	19.1	85.0	6	10000	White (WH), Transparent (CL)	596-26320
TAG36TD7-323-WHCL	2.0	4.7	12.7	9.0	23.8	95.0	7	10000	White (WH), Transparent (CL)	596-36320
TAG2TD6-323-WHCL	3.5	7.6	12.7	12.7	36.5	82.0	6	5000	White (WH), Transparent (CL)	596-02320
TAG22TD3-323-WHCL	3.5	7.6	25.4	12.7	36.5	82.0	3	2500	White (WH), Transparent (CL)	596-22320
TAG24TD1-323-WHCL	3.5	7.6	50.8	12.7	36.5	55.0	1	1000	White (WH), Transparent (CL)	596-24320
TAG23TD5-323-WHCL	4.5	10.0	19.1	12.7	44.5	101.6	5	5000	White (WH), Transparent (CL)	596-23320
TAG25TD3-323-WHCL	4.5	10.0	25.4	12.7	44.5	82.0	3	2500	White (WH), Transparent (CL)	596-25320
TAG9TD3-323-WHCL	5.5	12.1	25.4	19.1	57.1	82.0	3	2500	White (WH), Transparent (CL)	596-09320
TAG10TD2-323-WHCL	5.5	12.1	49.5	19.1	57.1	101.6	2	1000	White (WH), Transparent (CL)	596-10320
TAG1TD2-323-WHCL	8.5	18.2	48.2	19.1	79.2	101.6	2	1000	White (WH), Transparent (CL)	596-01320
TAG3TD3-323-WHCL	10.0	22.2	25.4	25.4	95.3	82.0	3	1000	White (WH), Transparent (CL)	596-03320
TAG6TD1-323-WHCL	10.0	22.2	50.8	25.4	95.3	55.0	1	500	White (WH), Transparent (CL)	596-06320
TAG107TD3-323-WHCL	12.0	37.5	25.4	31.8	149.9	82.0	3	1000	White (WH), Transparent (CL)	596-10732
TAG38TD3-323-WHCL	20.8	47.5	25.4	38.1	187.2	82.0	3	1000	White (WH), Transparent (CL)	596-38320
TAG07TD1-323-WHCL	20.8	47.5	50.8	25.4	187.2	55.0	1	250	White (WH), Transparent (CL)	596-07320

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

Identification tags for marking cable bundles

- **Q-tags**

Features and Benefits

- Identify cable or cable bundle
- Quickly read or scan printed information
- Mark by hand with T82 series marker pen or use printed adhesive label
- HellermannTyton offers complete printing solution (printers, labels, ribbons)
- Perfect combination with Q-ties to safely secure and mark cables with highly visible text

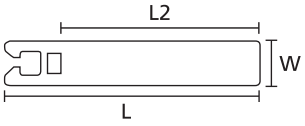
The flagged orientation of Q-tags ensures that printed texts are easily visible.

Please find more Q-Series products for your system solution on page 51 and 121.

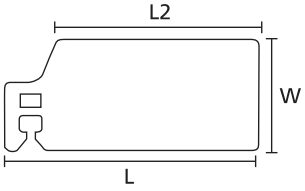
Please find the corresponding labels on page 302.

Q-tags are available in different sizes and types.

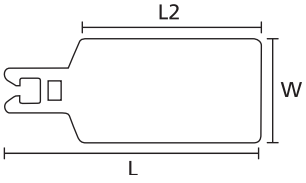
Q-tags can be labelled with pre-printed labels or by hand.



Q-tag QT7016R



Q-tag QT7040S



Q-tag QT7040R, QT10065R

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-40 °C to +85 °C
Flammability	UL94 V2

HF ✓ RoHS ✓

TYPE	Length (L)	Length (L2)	Width (W)	Strap Width max. (G)	Pack Cont.	Colour	Article-No.
QT7040S	88.0	70.0	42.0	3.6	50	White (WH)	151-10952
QT7016R	100.0	70.0	18.0	4.7	50	White (WH)	151-10950
QT7040R	100.0	70.0	42.0	4.7	50	White (WH)	151-10951
QT10065R	135.0	100.0	67.0	4.7	25	White (WH)	151-10953

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

TYPE	Pack Cont.	Colour	Article-No.
T82S-BK	2	Black (BK)	500-50820
T82R-RD	2	Red (RD)	500-50822

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

Identification ties and plates for marking cable bundles

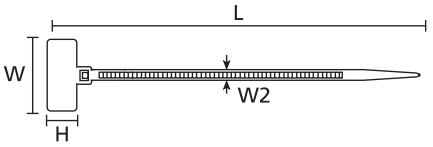
- **IT Ties**

One of the major benefits is the ability to both secure and identify cable bundles at different times.

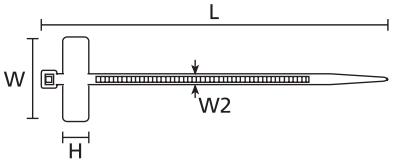
Features and Benefits

- Identification ties made of Polyamide 6.6
- For simple identification and securing of cable bundles in one step
- Can be marked either on-site or after bundling (Pen T82)
- In addition a large selection of labels are available

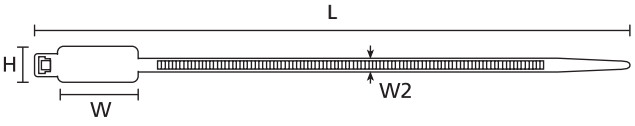
One operation with two benefits.



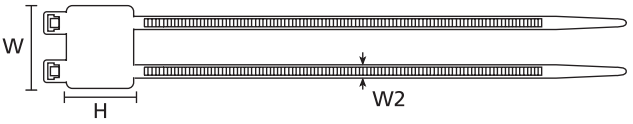
IT18FL



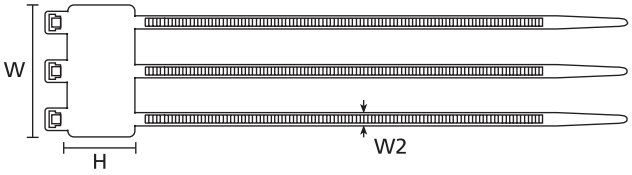
IT18R



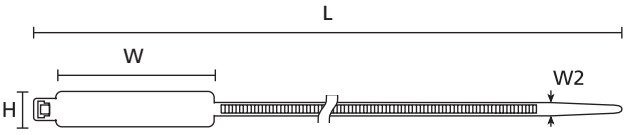
IT50R



IT50RD



IT50RT



IT50L

MATERIAL	Polyamide 6.6 (PA66)	
Operating Temperature	-40 °C to +85 °C	
Specifications	MS3368, UL-Recognized	UL-Recognized

HF ✓ RoHS ✓

TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Length (L)	Width (W2)	N	Recommended Labels	Colour	Pack Cont.	Article-No.
IT18FL	1.5	19.0	20.5	9.0	110.0	2.5	80	TAGN1L-9372	Natural (NA)	100	111-81919
IT18R	6.0	22.0	25.0	8.0	100.0	-	80	TAGN1L-9372	Natural (NA)	100	111-81821
IT50R	9.5	44.5	28.0	12.9	203.0	4.6	225	TAG23-10TD1	Natural (NA)	100	111-85019
IT50RD	10.0	44.0	29.0	26.3	205.0	4.7	225	TAG26-21TD1	Natural (NA)	50	111-85219
IT50RT	10.0	44.0	46.0	26.3	205.0	4.7	225	TAG43-21TD1	Natural (NA)	50	111-85119
IT50L	19.0	100.0	56.0	12.8	390.0	4.7	225	TAG52-10TD1	Natural (NA)	100	111-85319

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

N = Minimum Tensile Strength

TYPE	Pack Cont.	Colour	Article-No.
T82S-BK	2	Black (BK)	500-50820
T82R-RD	2	Red (RD)	500-50822

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

For product specific approvals and specifications please refer to the Appendix.

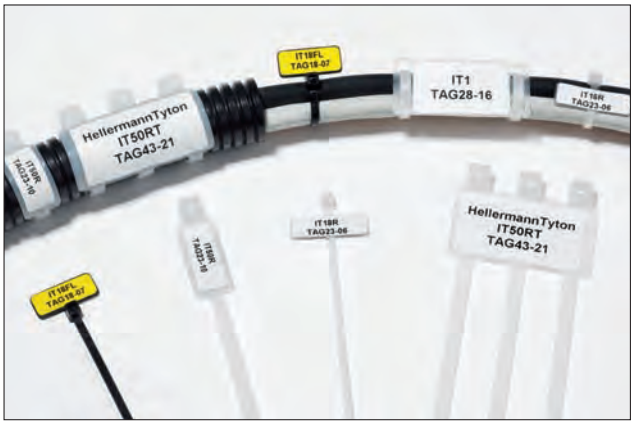
Labels for IT ties, IMP plates and Q-tags, thermal transfer

- **Helatag 1210 (White)**

In nearly all areas, but especially suitable for cable and wire identification in computer and electronic businesses. For problem-free printing, we recommend our software TagPrint Pro.

Features and Benefits

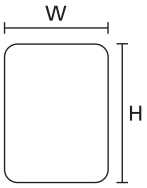
- Suited to the slightly rough surfaces of IT and IMP plates
- Adheres to rounded surfaces
- Excellent print performance using TT822OUT ribbon
- Print with TT4000+, TT430 for best results
- Easy label design with TagPrint Pro



Identification ties and tags.

MATERIAL	Type 1210, Vinyl (PVC), white gloss (WH)
Operating Temperature	-20 °C to +80 °C
Curing Temperature	from +5 °C
Adhesive	Acrylic
Thickness of Foil (µm)	83 µm
Chem. Material Properties	Resistant to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis.
Recommended Ribbon Type	TT822OUT

RoHS



TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	For Size	Pack Cont.	Colour	Article-No.
TAG18-07TD1-1210-WH	18.0	7.0	24.0	1	IT18FL	5000	White (WH)	596-12126
TAG18-16TD1-1210-WH	18.0	16.0	24.0	1	IMP1.5	2500	White (WH)	596-12127
TAG23-06TD1-1210-WH	23.0	6.0	30.0	1	IT18R	5000	White (WH)	596-12128
TAG23-10TD1-1210-WH	23.0	10.0	30.0	1	IT50R	5000	White (WH)	596-12129
TAG26-21TD2-1210-WH	26.0	21.0	57.0	2	IT50RD	2500	White (WH)	596-12130
TAG28-16TD1-1210-WH	28.0	16.0	34.0	1	IT1, IMP2	2500	White (WH)	596-12131
TAG43-16TD1-1210-WH	43.0	16.0	50.0	1	IMP2.5	2500	White (WH)	596-12132
TAG43-21TD1-1210-WH	43.0	21.0	50.0	1	IT50RT	2500	White (WH)	596-12133
TAG43-41TD1-1210-WH	43.0	41.0	50.0	1	IMP2.5W1.75	1000	White (WH)	596-12134
TAG52-10TD1-1210-WH	52.0	10.0	58.0	1	IT50L	5000	White (WH)	596-12135
TAG63TD1-1210-WH	63.5	38.1	70.0	1	QT7040R, QT7040S	1000	White (WH)	596-12154
TAG68-16TD1-1210-WH	68.0	16.0	74.0	1	IMP3.5, QT7016R	2500	White (WH)	596-12136
TAG102-64TD1-1210-WH	102.0	64.0	106.0	1	QT10065R	250	White (WH)	596-00607

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

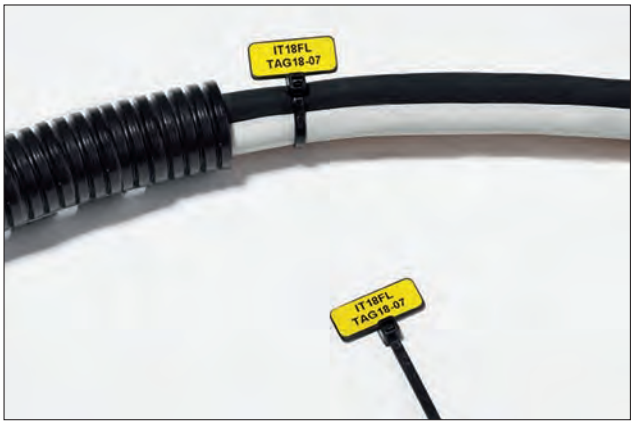
IT and IMP labels, thermal transfer

- **Helatag 1211 (Yellow)**

In nearly all areas, but especially suitable for cable and wire identification in computer and electronic businesses. For problem-free printing, we recommend our software TagPrint Pro.

Features and Benefits

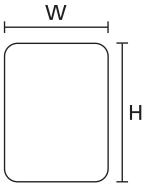
- Suited to the slightly rough surfaces of IT and IMP plates
- Adheres to rounded surfaces
- Excellent print performance using TT822OUT ribbon
- Print with TT4000+, TT430 for best results
- Easy label design with TagPrint Pro



Identification ties and tags.

MATERIAL	Type 1211, Vinyl (PVC), yellow gloss (GSYE)
Operating Temperature	-20 °C to +80 °C
Curing Temperature	from +5 °C
Adhesive	Acrylic
Thickness of Foil (µm)	83 µm
Chem. Material Properties	Resistant to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis.
Recommended Ribbon Type	TT822OUT

RoHS



TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	For Size	Pack Cont.	Colour	Article-No.
TAG18-07TD1-1211-YE	18.0	7.0	24.0	1	IT18FL	5000	Yellow gloss (GSYE)	596-12110
TAG18-16TD1-1211-YE	18.0	16.0	24.0	1	IMP1.5	2500	Yellow gloss (GSYE)	596-12111
TAG23-06TD1-1211-YE	23.0	6.0	30.0	1	IT18R	5000	Yellow gloss (GSYE)	596-12112
TAG23-10TD1-1211-YE	23.0	10.0	30.0	1	IT50R	5000	Yellow gloss (GSYE)	596-12113
TAG26-21TD2-1211-YE	26.0	21.0	57.0	2	IT50RD	2500	Yellow gloss (GSYE)	596-12114
TAG28-16TD1-1211-YE	28.0	16.0	34.0	1	IT1, IMP2	2500	Yellow gloss (GSYE)	596-12115
TAG43-16TD1-1211-YE	43.0	16.0	50.0	1	IMP2.5	2500	Yellow gloss (GSYE)	596-12116
TAG43-21TD1-1211-YE	43.0	21.0	50.0	1	IT50RT	2500	Yellow gloss (GSYE)	596-12117
TAG43-41TD1-1211-YE	43.0	41.0	50.0	1	IMP2.5W1.75	1000	Yellow gloss (GSYE)	596-12118
TAG52-10TD1-1211-YE	52.0	10.0	58.0	1	IT50L	5000	Yellow gloss (GSYE)	596-12119
TAG68-16TD1-1211-YE	68.0	16.0	74.0	1	IMP3.5, QT7016R	2500	Yellow gloss (GSYE)	596-61211

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

Type label identification, thermal transfer

- **Material 1204 (Silver)**

Scratch-resistant type plates for the industry. The high temperature range suits a wide range of applications on flat surfaces.
The adhesive is also suitable for critical surfaces like plastic and paint.

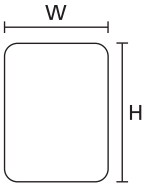
Features and Benefits

- Marking labels made of matt silver Polyester
- Replacement option for aluminium plates
- Print labels with customer unique references
- Use text, graphics and barcodes as required
- Excellent print performance using TT822OUT ribbon
- Print with TT4000+, TT430 for best results
- Easy label design with TagPrint Pro

Professional type plate on a heating unit.

MATERIAL	Type 1204, Polyester (PET), silver matt (SR)
Operating Temperature	-40 °C to +150 °C
Curing Temperature	from +0 °C
Adhesive	Acrylic
Thickness of Foil (µm)	55 µm
Chem. Material Properties	Excellent resistance to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis.
Recommended Ribbon Type	TT822OUT
Specifications	UL-Recognized

HF ✓ RoHS ✓



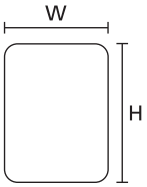
TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG71TD6-1204-SR	12.7	11.1	101.6	6	15000	Silver (SR)	596-12071
TAG13TD4-1204-SR	19.1	6.4	101.6	4	10000	Silver (SR)	596-12043
TAG16TD3-1204-SR	22.9	6.4	80.0	3	10000	Silver (SR)	596-12046
TAG34TD3-1204-SR	25.4	9.5	85.1	3	7500	Silver (SR)	596-34120
TAG15TD3-1204-SR	25.4	12.7	85.1	3	7500	Silver (SR)	596-12045
TAG31TD3-1204-SR	25.4	19.1	85.1	3	5000	Silver (SR)	596-31120
TAGR2TD1-1204-SR	30.0	-	30.0	1	37.5 m	Silver (SR)	596-12042
TAG35TD3-1204-SR	31.8	9.5	101.6	3	7500	Silver (SR)	596-12035
TAG17TD2-1204-SR	38.1	6.4	85.1	2	5000	Silver (SR)	596-12047
TAG27TD2-1204-SR	38.1	19.1	85.1	2	5000	Silver (SR)	596-27120
TAG67TD2-1204-SR	38.1	31.8	85.1	2	1000	Silver (SR)	596-12067
TAG69TD2-1204-SR	40.6	22.9	89.0	2	2500	Silver (SR)	596-12069
TAG77TD1-1204-SR	50.8	22.9	55.0	1	2000	Silver (SR)	596-12077
TAG73TD1-1204-SR	50.8	25.4	55.0	1	2000	Silver (SR)	596-73124
TAG66TD1-1204-SR	50.8	36.5	56.8	1	1000	Silver (SR)	596-12066
TAG68TD1-1204-SR	63.5	25.4	69.0	1	2000	Silver (SR)	596-12068

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

For product specific approvals and specifications please refer to the Appendix.

Type label identification, thermal transfer

- **Material 1204 (Silver)**



TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG63TD1-1204-SR	63.5	38.1	70.0	1	1000	Silver (SR)	596-12063
TAG76TD1-1204-SR	63.5	50.8	70.0	1	500	Silver (SR)	596-12076
TAG72TD1-1204-SR	69.9	31.8	76.0	1	1000	Silver (SR)	596-12072
TAG65TD1-1204-SR	76.2	36.5	82.0	1	1000	Silver (SR)	596-12065
TAG62TD1-1204-SR	76.2	50.8	82.0	1	500	Silver (SR)	596-12062
TAG64TD1-1204-SR	88.9	36.5	95.0	1	1000	Silver (SR)	596-12064
TAG97TD1-1204-SR	101.6	74.0	106.0	1	500	Silver (SR)	596-71204
TAGR3TD1-1204-SR	104.0	-	108.0	1	75.0 m	Silver (SR)	596-31204
TAG02TD1-1204-SR	104.0	12.0	104.0	1	5000	Silver (SR)	596-21204
TAG78TD1-1204-SR	104.0	140.0	105.0	1	500	Silver (SR)	596-12078

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

For product specific approvals and specifications please refer to the Appendix.

Asset identification label, thermal transfer

- **Material 1206 (White)**

Scratch-resistant general identification for industrial applications. The high temperature range suits a wide range of applications on flat surfaces. The adhesive is also suitable for critical surfaces such as plastic and paint coated.

Features and Benefits

- Ideal for machinery operating in high temperature areas (up to +150 °C)
- Barcodes and alphanumeric text remain pin sharp on this high quality material
- Excellent print performance using TT822OUT ribbon
- Print with TT4000+, TT430 for best results
- Easy label design with TagPrint Pro

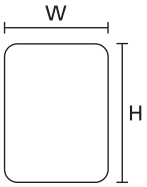
Helatag label for a permanent asset identification.

MATERIAL	Type 1206, Polyester (PET), white gloss (GSWH)
Operating Temperature	-40 °C to +150 °C
Curing Temperature	from +0 °C
Adhesive	Acrylic
Thickness of Foil (µm)	50 µm
Chem. Material Properties	Excellent resistance to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis
Recommended Ribbon Type	TT822OUT
Specifications	UL-Recognized

HF RoHS

Asset identification label, thermal transfer

- **Material 1206 (White)**



TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG71TD6-1206-WH	12.7	11.1	101.6	6	15000	White gloss (GSWH)	596-12671
TAG13TD4-1206-WH	19.1	6.4	101.6	4	10000	White gloss (GSWH)	596-12061
TAG16TD3-1206-WH	22.9	6.4	80.0	3	10000	White gloss (GSWH)	596-12616
TAG61TD3-1206-WH	25.4	4.8	89.0	3	10000	White gloss (GSWH)	596-12661
TAG01TD3-1206-WH	25.4	6.4	89.0	3	7500	White gloss (GSWH)	596-01120
TAG34TD3-1206-WH	25.4	9.5	85.1	3	7500	White gloss (GSWH)	596-12634
TAG15TD3-1206-WH	25.4	12.7	85.1	3	7500	White gloss (GSWH)	596-12615
TAG31TD3-1206-WH	25.4	19.1	85.1	3	5000	White gloss (GSWH)	596-12631
TAG35TD3-1206-WH	31.8	9.5	101.6	3	7500	White gloss (GSWH)	596-12635
TAG17TD2-1206-WH	38.1	6.4	85.1	2	5000	White gloss (GSWH)	596-12617
TAG27TD2-1206-WH	38.1	19.1	85.1	2	2500	White gloss (GSWH)	596-12627
TAG67TD2-1206-WH	38.1	31.8	85.1	2	2500	White gloss (GSWH)	596-12667
TAG69TD2-1206-WH	40.6	22.9	89.0	2	2500	White gloss (GSWH)	596-12669
TAG77TD1-1206-WH	50.8	22.9	55.0	1	2000	White gloss (GSWH)	596-71206
TAG73TD1-1206-WH	50.8	25.4	55.0	1	2000	White gloss (GSWH)	596-12673
TAG66TD1-1206-WH	50.8	36.5	56.8	1	1000	White gloss (GSWH)	596-12666
TAG68TD1-1206-WH	63.5	25.4	69.0	1	2000	White gloss (GSWH)	596-12668
TAG63TD1-1206-WH	63.5	38.1	70.0	1	1000	White gloss (GSWH)	596-12663
TAG76TD1-1206-WH	63.5	50.8	70.0	1	500	White gloss (GSWH)	596-61206
TAG4TD1-1206-WH	65.0	20.0	70.0	1	2500	White gloss (GSWH)	596-41206
TAG72TD1-1206-WH	69.9	31.8	76.0	1	1000	White gloss (GSWH)	596-12672
TAG65TD1-1206-WH	76.2	36.5	82.0	1	1000	White gloss (GSWH)	596-12665
TAG62TD1-1206-WH	76.2	50.8	82.0	1	500	White gloss (GSWH)	596-12662
TAG64TD1-1206-WH	88.9	36.5	95.0	1	1000	White gloss (GSWH)	596-12664

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

For product specific approvals and specifications please refer to the Appendix.

Tamper evident security labelling, thermal transfer

- **Helatag 1208 (White), fragmenting**

The specially formulated adhesive labels give the highest quality print clarity when printed on thermal transfer printers. The range of materials and ribbons have been developed to suit the needs of most users. Designing and printing labels is simple and users can quickly print out professional labels in a matter of moments when using TagPrint Pro labelling software.

Features and Benefits

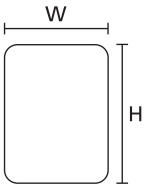
- A security label that fragments on removal
- Designed weak spots makes label removal time consuming
- Excellent print performance using TT822OUT ribbon
- Print with TT4000+, TT430 for best results
- Easy label design with TagPrint Pro

A secure way of identifying ...

... if an asset label has been tampered with.

MATERIAL	Type 1208, Acrylate foil (AC), white (WH), tamper proof
Operating Temperature	-40 °C to +150 °C
Curing Temperature	from +4 °C
Adhesive	Acrylic
Thickness of Foil (µm)	56 µm
Chem. Material Properties	Resistant to oils, water and solvents
Recommended Ribbon Type	TT822OUT

RoHS



TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG71TD6-1208-WH	12.7	11.1	101.6	6	15000	White (WH)	596-20871
TAG34TD3-1208-WH	25.4	9.5	85.1	3	7500	White (WH)	596-12083
TAG15TD3-1208-WH	25.4	12.7	85.1	3	7500	White (WH)	596-12080
TAG31TD3-1208-WH	25.4	19.1	85.1	3	5000	White (WH)	596-12084
TAG35TD3-1208-WH	31.8	9.5	101.6	3	7500	White (WH)	596-12085
TAG17TD2-1208-WH	38.1	6.4	85.1	2	5000	White (WH)	596-12081
TAG27TD2-1208-WH	38.1	19.1	85.1	2	2500	White (WH)	596-12082
TAG67TD2-1208-WH	38.1	31.8	85.1	2	2500	White (WH)	596-12087
TAG69TD2-1208-WH	40.6	22.9	89.0	2	2500	White (WH)	596-12089
TAG77TD1-1208-WH	50.8	22.9	55.0	1	2000	White (WH)	596-71208
TAG73TD1-1208-WH	50.8	25.4	55.0	1	2000	White (WH)	596-31208
TAG66TD1-1208-WH	50.8	36.5	56.8	1	1000	White (WH)	596-12086
TAG68TD1-1208-WH	63.5	25.4	69.0	1	2000	White (WH)	596-12088
TAG72TD1-1208-WH	69.9	31.8	76.0	1	1000	White (WH)	596-20872

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

Tamper evident security labelling, thermal transfer

- **Material 951 (Silver), 2 parts**

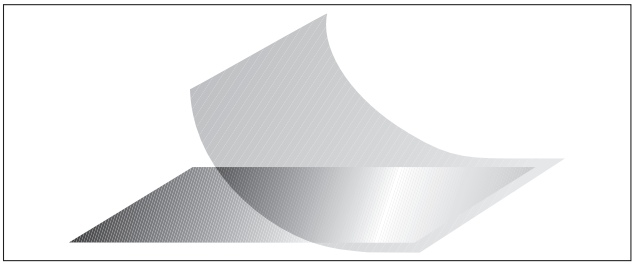
Specially for applications in the automotive market for lasting, non-transferable and tamperproof application of type plates. Recommended for use on flat surfaces on the vehicle chassis. The transparent overlaminate, which overlaps by a few millimetres, guarantees high resistance and is simple and safe to apply by hand.

For problem-free printing, we recommend TagPrint Pro software.

Features and Benefits

- 2-part label, delivered on reel together with the protective label
- Designed for highly visible and rugged identification on trucks and trailers
- Tamper evident, when pulled off a checkered pattern will be visible as evident
- High durability in outside use
- Meets requirements of the KBA (Kraftfahrtbundesamt [German Federal Motor Transport Authority])
- Thickness of 951A label 36 µm, and 951B laminate 25 µm
- Particularly suitable as type label for vehicles
- Excellent print performance using TT822OUT ribbon
- Print with TT4000+, TT430 for best results
- Easy label design with TagPrint Pro

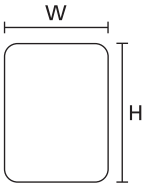
Type plate of an HGV trailer with protective laminate.



The printed silver type plate (Mat. 951A) is protected by the transparent laminate (Mat 951B).

MATERIAL	Type 951, Polyester, silver (SR) and Polyester, transparent (CL)
Operating Temperature	-40 °C to +150 °C
Curing Temperature	from 0 °C (label), from +4 °C (laminate)
Adhesive	Acrylic
Thickness of Foil (µm)	36 µm, 25 µm
Chem. Material Properties	Excellent resistance to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis.
Recommended Ribbon Type	TT822OUT
Specifications	KBA (Kraftfahrzeugbundesamt) Germany, UL-Recognized

HF ✓ RoHS ✓



TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG25.4-12.7TD1-951 SET	25.4	12.7	31.5	1	1000	Silver (SR)	596-44951
TAG50.8-25.4TD1-951 SET	50.8	25.4	56.8	1	1000	Silver (SR)	596-43951
TAG63.5-50.8TD1-951 SET	63.5	50.8	69.5	1	500	Silver (SR)	596-42951
TAG101-74TD1-951 SET	101.6	74.0	107.0	1	250	Silver (SR)	596-41951
TAG101-160TD1-951 SET	101.6	160.0	105.8	1	250	Silver (SR)	596-40951

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

For product specific approvals and specifications please refer to the Appendix.

Stainless Steel Printing System

• Portable Embossing Machine eKUBE

The eKUBE features a silent embossing mechanism can therefore be placed in any industrial or office environment without disturbing employees.

The eKUBE is equipped with an automatic indexing loader and finished markers are ejected through a side slot.

Built-in software provides easy user interface. Data entry is via a portable storage media or wireless LAN.

Features and Benefits

Marker handling:

- stacking loading concept
- hopper capacity (200 plates)
- side eject
- universal clamp holder

Embossing drum configuration:

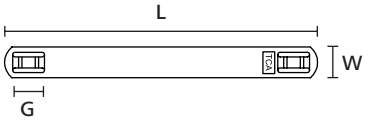
- embossing drum - 60 characters
- standard type (alphanumeric)
- 4 mm emboss character size
- Letters A to Z, Numbers 0 to 9, Symbols ( ) . ' / # & - +

The portable embossing machine eKUBE. Patent Number: SG2013/000083

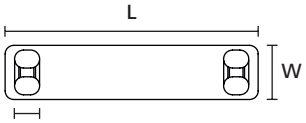
Power Supply	230VAC 50/60Hz
Cycle Time	up to 120 markers/hour
Printer Interfaces	portable storage media or wireless LAN
Dimensions W x H x D	420 mm x 320 mm x 420 mm
Weight	34 kg

TYPE	Article-No.
eKUBE Marking Machine	920-90001

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



MBM10X100L



MBM19X90L

Marker Plates for the eKUBE.

• Embossing Machine Markers eKUBE

TYPE	Material	Pack Cont.	Article-No.
MBM19x90L	SS316	400	920-90305
MBM10x60L	SS316	500	920-90301
MBM10x80L	SS316	500	920-90302
MBM10x100L	SS316	500	920-90303
MBM14x100L	SS316	500	920-90304

All dimensions in mm. Subject to technical changes.

• Embossing Machine Magazines eKUBE

TYPE	Article-No.
MAG10x60L	920-90002
MAG10x80L	920-90003
MAG10x100L	920-90004
MAG14x100L	920-90005
MAG19x90L	920-90006

All dimensions in mm. Subject to technical changes.

Thermal Transfer Printer

- **TrakMark DS, Double Sided**

Features and Benefits

- High volume two sided printing
- Print on TLFX DS and TULT DS (Ladder Products)
- Print on TLFX, TULT, and TCGT (Continuous tubing)
- Print on Tiptags
- Print on Adhesive Labels
- Uses standard 300 m ribbons
- Barcodes: standard and 2D
- Print speed up to 125 mm/s
  (30 mm/s recommended for Ladder Products and Tubing)
- Multiple language selection
- Windows drivers: 32 / 64 bit for Windows XP, Windows Vista, Windows 7, and Windows 8
- Options: External Reel Holder (556-00451), Cutter (556-04025), Perforator (556-04024)

TrakMark DS printer.

Print Method	Thermal Transfer
Print Head Type	300 dpi, flat type
Print Speed	30, 40, 50, 75, 100, 125 mm/s
Max. Print Width	105.6 mm
Max. Label Length	2.000 mm
Printer Interfaces	RS232 C, USB 2.0, Ethernet 10/100 Base T
Supported Barcodes, Printer	Standard, 2D
Printer Memory	64 MB RAM
Dimensions W x H x D	248 mm x 395 mm x 554 mm
Weight	21 kg
Specifications	CE, FCC, UL

RoHS

More information on printer accessories can be found on page 322.

TYPE	Article-No.
TRAKMARK DS 300DPI	556-05000

Subject to technical changes.

For product specific approvals and specifications please refer to the Appendix.

Thermal Transfer Printer

- **TT4000+**

Features and Benefits

- High volume single sided printing
- Print on TLFX DS and TULT DS (Ladder Products)
- Print on TLFX, TULT, and TCGT (Continuous tubing)
- Print on Tiptags
- Print on Adhesive Labels
- Uses standard 300 m ribbons
- Barcodes: standard and 2D
- Print speed up to 125 mm/s
  (30 mm/s recommended for Ladder Products and Tubing)
- Multiple language selection
- Windows drivers: 32 / 64 bit for Windows XP, Windows Vista, Windows 7, and Windows 8
- Options: External Reel Holder (556-00451), Cutter (556-04025), Perforator (556-04024)

TT4000+ series printer.

Print Method	Thermal Transfer
Print Head Type	300 dpi, flat type
Print Speed	30, 40, 50, 75, 100, 125 mm/s
Max. Print Width	105.6 mm
Max. Label Length	1.000 mm
Printer Interfaces	RS232 C, USB 2.0, Ethernet 10/100 Base T
Supported Barcodes, Printer	Standard, 2D
Printer Memory	64 MB RAM
Dimensions W x H x D	242 mm x 274 mm x 446 mm
Weight	10 kg
Specifications	CE, FCC, UL

RoHS

For problem-free printing we recommend TagPrint Pro, page 323.

More information on printer accessories can be found on page 322.

TYPE	Article-No.
TT4000+ 300dpi	556-04000

Subject to technical changes.

For product specific approvals and specifications please refer to the Appendix.

TTP80 Printer

- **Portable Thermal Transfer Printer**

Features and Benefits

- Portable - only 2.0kg
- Automatically prints and cuts to your desired tag length
- Large screen, 3-lines input and display, more than 10 function displayed
- User friendly
- QWERT style keyboard allows fast data entry
- Robust internal memory to store up to 10 files, allowing saving and editing in any location
- 3 modes of operation:
  - direct print via a USB connection with a Windows PC
  - keying the data directly
  - data transfer via thumb drive
- Enhanced model from the existing brands available in the market"
- Resolution: 300dpi
- Printed character height: 1.3 to 8.0mm

Consumables:

- Sleeves (PVC / POX) size ø2.0 to 6.0mm
- Labels 6.0 / 9.0 / 12.0mm height
- ID Strip 4.0 / 9.0 / 12.0mm height (similar to Carrimark System)
- Ribbons 80m length (Black / White)

The mobile printer TTP80.

Print Method	Thermal Transfer
Print Head Type	Thermal Transfer
Print Speed	11.5mm/sec.
Printer Interfaces	USB
Supported Barcodes, Printer	NO
Printer Memory	100 MB RAM
Dimensions W x H x D	350 mm x 95 mm x 290 mm

TYPE	Description	Weight	Article-No.
TTP80	Portable Thermal Transfer Printer TTP80	2.00 kg	920-90400

All dimensions in mm. Subject to technical changes.

Accessories for Printer TTP80

TYPE	Description	Article-No.
C80	Cutter Holder and Blade for TTP80	920-90402

All dimensions in mm. Subject to technical changes.

TYPE	Description	Article-No.
PB80	External Battery Pack for TTP80	920-90401

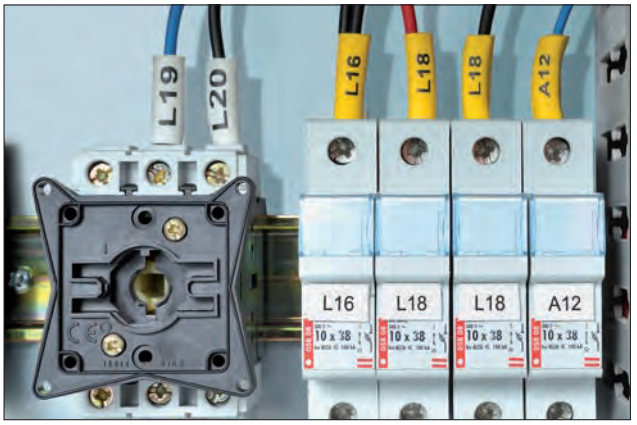
All dimensions in mm. Subject to technical changes.

TYPE	Description	Weight	Article-No.
TTP80 Caddy	Transport Caddy for TTP80	500 g	920-90403

All dimensions in mm. Subject to technical changes.

Consumables TTP80

• Heatshrink Tube



Heatshrink tube for the TTP80.

MATERIAL	Polyolefin (PO)
Operating Temperature	-40 °C to +90 °C
Min. Shrink Temperature	+90 °C
Shrink Ratio	2:1
Recommended Ribbon Type	PR80B, PR80DTH

• Heatshrink Tube White

TYPE	Supplied Ø D min.	Recov. Ø d max.	Pack Cont.	Colour	Article-No.
PHST30W	3.0	1.5	5	White (WH)	920-90428
PHST52W	5.2	2.6	5	White (WH)	920-90429
PHST68W	6.8	3.4	5	White (WH)	920-90430

All dimensions in mm. Subject to technical changes.

• Heatshrink Tube Yellow

TYPE	Supplied Ø D min.	Recov. Ø d max.	Pack Cont.	Colour	Article-No.
PHST30YE	3.0	1.5	5	Yellow (YE)	920-90431
PHST52YE	5.2	2.6	5	Yellow (YE)	920-90432
PHST68YE	6.8	3.4	5	Yellow (YE)	920-90433

All dimensions in mm. Subject to technical changes.

Consumables TTP80

• TTP80 Label Cassette

TTP80 Label Cassette for the TTP80.

MATERIAL	Polyester (PET)
Operating Temperature	-10 °C to +80 °C
Recommended Ribbon Type	PR80B, PR80DTH

• TTP80 Label Cassette Silver

TYPE	Pack Cont.	Colour	Article-No.
PL506SL	5	Silver (SR)	920-90425
PL509SL	5	Silver (SR)	920-90426
PL512SL	5	Silver (SR)	920-90427

All dimensions in mm. Subject to technical changes.

• TTP80 Label Cassette White

TYPE	Pack Cont.	Colour	Article-No.
PL506W	5	White (WH)	920-90419
PL509W	5	White (WH)	920-90420
PL512W	5	White (WH)	920-90421

All dimensions in mm. Subject to technical changes.

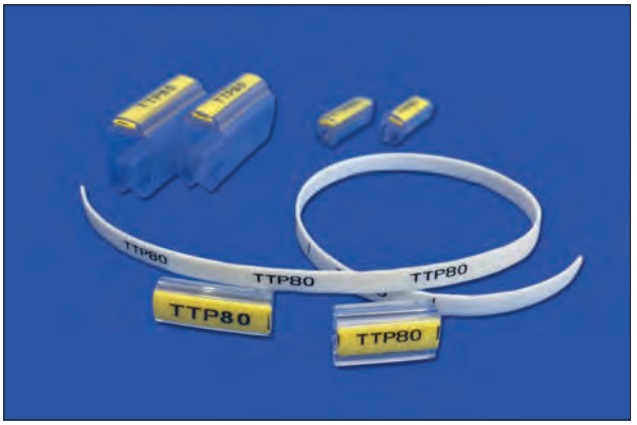
• TTP80 Label Cassette Yellow

TYPE	Pack Cont.	Colour	Article-No.
PL506YE	5	Yellow (YE)	920-90422
PL509YE	5	Yellow (YE)	920-90423
PL512YE	5	Yellow (YE)	920-90424

All dimensions in mm. Subject to technical changes.

Consumables TTP80

- **TTP80 Strip Cassette**



Strip Cassette for TTP80.

MATERIAL	Polyvinylchloride (PVC)
Operating Temperature	-10 °C to +80 °C
Recommended Ribbon Type	PR80B, PR80DTH

- **TTP80 Strip Cassette White**

TYPE	Pack Cont.	Colour	Article-No.
PIDS504W	5	White (WH)	920-90413
PIDS509W	5	White (WH)	920-90414
PIDS5012W	5	White (WH)	920-90415

All dimensions in mm. Subject to technical changes.

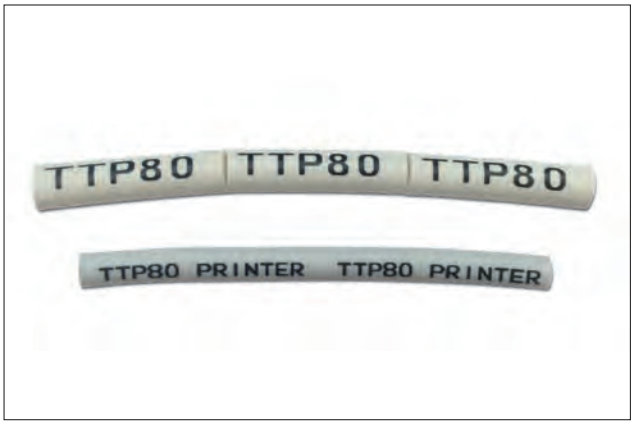
- **TTP80 Strip Cassette Yellow**

TYPE	Pack Cont.	Colour	Article-No.
PIDS504YE	5	Yellow (YE)	920-90416
PIDS509YE	5	Yellow (YE)	920-90417
PIDS5012YE	5	Yellow (YE)	920-90418

All dimensions in mm. Subject to technical changes.

Consumables TTP80

- **White PVC Marker Sleeve**



PVC Marker Sleeve for TTP80.

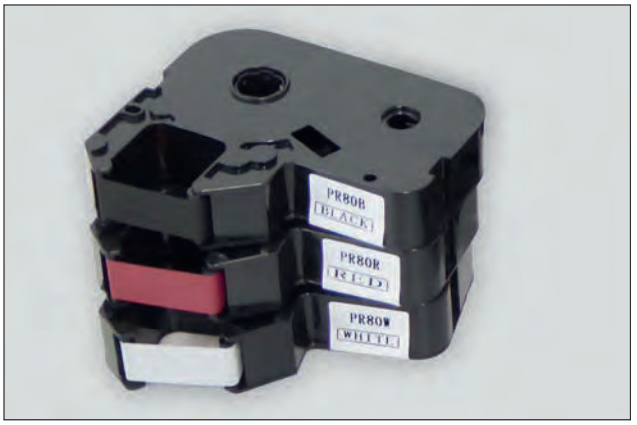
MATERIAL	Polyvinylchloride (PVC)
Operating Temperature	-10 °C to +80 °C
Recommended Ribbon Type	PR80B, PR80DTH

TYPE	Pack Cont.	Colour	Article-No.
PT10.W	20	White (WH)	920-90449
PT4.0W	24	White (WH)	920-90440
PT4.2W	24	White (WH)	920-90441
PT4.5W	24	White (WH)	920-90442
PT5.0W	24	White (WH)	920-90443
PT5.2W	24	White (WH)	920-90444
PT5.5W	24	White (WH)	920-90445
PT6.0W	24	White (WH)	920-90446
PT7.0W	24	White (WH)	920-90447
PT8.0W	24	White (WH)	920-90448
PT3.5W	28	White (WH)	920-90438
PT3.6W	28	White (WH)	920-90439
PT2.5W	36	White (WH)	920-90435
PT3.0W	36	White (WH)	920-90436
PT3.2W	36	White (WH)	920-90437
PT2.0W	44	White (WH)	920-90434

All dimensions in mm. Subject to technical changes.

Consumables TTP80

- **TTP80 Ribbon**



TTP80 Ribbons are available in different colours.

TYPE	Colour	Material	Article-No.
PR80B	Black (BK)	Polyester Film	920-90404
PR80DTH	Black (BK)	Polyolefin (PO)	920-90407
PR80R	Red (RD)	Polyester Film	920-90406
PR80W	White (WH)	Polyolefin Film	920-90405

All dimensions in mm. Subject to technical changes.

Thermal Transfer Printer

- **TTE420**
- **TTE40S**

Features and Benefits

The TTE420 and TTE420S are an entry-level thermal transfer printer suitable for small to medium volume print runs. The printers are specifically designed to run HellermannTyton's standard range of adhesive and non-adhesive labels and ShrinkTrak.

Its robust double-walled cover protects the inner mechanism against dust and external damage and is equipped with a high quality long-life thermal print head which can print up to 25 km of adhesive labels.

The printers are compact and light, it can be installed immediately in any convenient place and can also be easily move from workstation to workstation.

Creation of professional looking industrial identification is simplified by the use of HellermannTyton's label creation software Tagprint Pro. The software is both intuitive enough to quickly create basic printing and has enough features to satisfy the most demanding customer needs.

Thermal transfer printer (TTE420/TTE420S).

Application

The printer is virtually limitless when it comes to suitable applications. It can be used for identification of goods in the logistics area and marking of cables in the electrical industry.

- **TTE420**

Print Method	Thermal Transfer
Print Head Type	203dpi
Print Speed	127mm/s
Max. Print Width	108 mm
Label Height Max (metric)	13 mm
Printer Interfaces	serial port, parallel port, USB
Supported Barcodes, Printer	Standard and 2D
Printer Memory	4 MB RAM
Dimensions W x H x D	213 mm x 188 mm x 314 mm
Weight	2.80 kg

RoHS

TYPE	Article-No.
TTE420	556-00500

- **TTE420S**

Print Method	Thermal Transfer
Print Head Type	300dpi
Print Speed	127mm/s
Max. Print Width	108 mm
Label Height Max (metric)	13 mm
Printer Interfaces	serial port, parallel port, USB
Supported Barcodes, Printer	Standard and 2D
Printer Memory	4 MB RAM
Dimensions W x H x D	213 mm x 188 mm x 314 mm
Weight	2.80 kg

RoHS

TYPE	Article-No.
TTE420S	556-00501

Thermal Transfer Printer

- **TT430**

Features and Benefits

- Medium volume single sided printing
- Print on TLFX DS and TULT DS (Ladder Products)
- Print on TLFX, TULT and TCGT (Continuous tubing)
- Print on Tiptags
- Print on Adhesive Labels
- Uses standard ribbons
- Barcodes: standard and 2D
- Print speed up to 125 mm/s
  (30mm/s recommended for Ladder Products and Tubing)
- Adjustable label sensor
- Multiple language selection
- Windows drivers: 32/64 bit for Windows XP, Windows Vista, Windows 7, and Windows 8
- Options: Cutter (556-00452) and
  External Reel Holder (556-00451)

TT430 thermal transfer printer.

Print Method	Thermal Transfer
Print Head Type	300 dpi, flat type
Print Speed	up to 125 mm/s
Max. Print Width	106 mm
Max. Label Length	1.000 mm
Printer Interfaces	USB 2.0, Ethernet 10/100 Base T
Supported Barcodes, Printer	Standard and 2D
Printer Memory	64 MB RAM
Dimensions W x H x D	253 mm x 189 mm x 322 mm
Weight	4 kg
Specifications	CE, FCC, UL

RoHS

TYPE	Article-No.
TT430	556-00450

Subject to technical changes.

TYPE	Description	Article-No.
P430 Perforator	-	556-00456
S430 Cutter	S430 Cutter	556-00452
TT430 External Reel Holder	TT430 External Reel Holder	556-00451

Subject to technical changes.

One Step to the Web!

For product specific approvals and specifications please refer to the Appendix.

Use this selection matrix to find the right combination of material and ribbon to suit your application.

Material (Page)	Resistance to: Smudgeproof	Scratchproof	Partly smudgeproof	Oils / benzenes	Alcoholic solvents	Etching	Approved	TT ribbon	Market (suggested): Aerospace	Automotive	Electronics	Machine Building	Military	Process Control	Rail
323 (298)	■	■	–	■	–	–	–	TT822OUT	–	–	■	–	–	–	–
	■	–	–	–	–	–	–	TT932DOUT	–	–	–	–	–	–	■
951 (307)	■	■	–	■	–	–	■	TT822OUT	–	■	■	–	–	–	–
	■	■	–	■	■	–	–	TTDTHOUT	–	■	■	–	–	–	–
1204 (303)	■	■	–	■	–	–	■	TT822OUT	–	■	■	–	■	■	–
	■	–	–	–	–	–	–	TT932DOUT	–	–	–	■	–	–	–
	■	■	–	■	■	–	–	TTDTHOUT	–	■	■	–	–	–	–
1206 (304)	■	■	–	■	–	–	■	TT822OUT	–	–	■	■	–	■	–
	■	–	–	–	–	–	–	TT932DOUT	–	–	■	■	–	■	–
	■	■	–	■	■	–	–	TTDTHOUT	–	–	■	■	–	■	–
1208 (306)	■	■	–	–	–	–	–	TT822OUT	–	–	■	–	–	–	–
	■	–	–	–	–	–	–	TT932DOUT	–	–	–	–	–	–	■
1210 (301) **1211** (302)	■	■	–	■	–	–	–	TT822OUT	–	–	–	■	–	■	■
	■	–	–	–	–	–	–	TT932DOUT	–	–	–	■	–	–	–
TIPTAG PU (297)	■	■	–	■	■	■	–	TTRC+	–	–	–	■	–	–	■
TLFX (293)	■	■	–	■	■	–	–	TTDTHOUT	■	–	–	–	■	–	■
	■	■	–	■	■	■	–	TTRC+	■	–	–	–	■	–	■
TLFX DS (295)	■	■	–	■	■	–	–	TTDTHOUT	■	–	–	–	■	–	■
	■	■	–	■	■	■	–	TTRC+	■	–	–	–	■	–	■
TULT (289)	–	–	■	–	–	–	–	TT822OUT8	■	–	–	■	■	■	–
	■	■	–	■	■	–	–	TTDTHOUT	■	■	–	■	■	■	–
	■	■	–	■	■	■	–	TTRC+	■	–	–	■	■	■	–
	–	–	■	–	–	–	–	TTRW	■	–	–	■	■	■	–
TULT DS (291)	–	–	■	–	–	–	–	TT822OUT8	■	–	–	■	■	■	–
	■	■	–	■	■	–	–	TTDTHOUT	■	■	–	■	■	■	–
	■	■	–	■	■	■	–	TTRC+	■	–	–	■	■	■	–
	–	–	■	–	–	–	–	TTRW	■	–	–	■	■	■	–

■ yes
– no

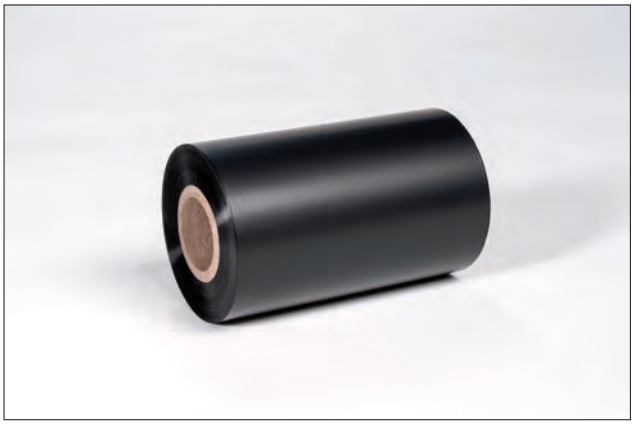
Thermal Transfer Ribbons for

- **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.

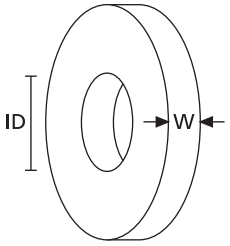
Features and Benefits

- 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)	Length (L)	Article-No.
TT822OUT 60MM	323/823/880/951/1203/1204/1205/1206/1207/1208/ 1210/1211/1213/1216/1220/1221	Black (BK)	60.0	300.0 m	556-00111
TT822OUT 110MM	323/823/880/951/1203/1204/1205/1206/1207/1208/ 1210/1211/1213/1216/1220/1221	Black (BK)	110.0	300.0 m	556-00101
TT932DOUT 30MM	323/1209	Black (BK)	30.0	300.0 m	556-00124
TT932DOUT 85MM	323/1209	Black (BK)	85.0	300.0 m	556-00117
TT932DOUT 110MM	323/1209	Black (BK)	110.0	300.0 m	556-00118
TT122OUT 60mm	1220/1221	Black (BK)	60.0	300.0 m	556-00060
TT122OUT 110mm	1220/1221	Black (BK)	110.0	300.0 m	556-00061

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

RoHS

Thermal Transfer Ribbons for

- **Heatshrink and TIPTAGs**

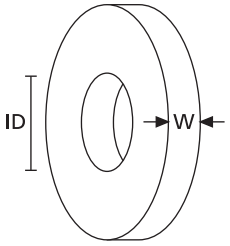
The thermal transfer print technology is based on heating up certain dots in the print head. This transfers the ink very precisely from the ribbon onto the surface of the printed material.

Features and Benefits

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

Ribbons for printing on Tubing and TIPTAGs.

ID: The standard inside core diameter is 25.4 mm.



TYPE	Recommended Material	Colour	Width (W)	Length (L)	Article-No.
TTRC+ 30MM	TIPTAG/TIPTAG PU/TULT/TCGT/TLFX	Black (BK)	30.0	300.0 m	556-00114
TTRC+ 60MM	TIPTAG/TIPTAG PU/TULT/TCGT/TLFX	Black (BK)	60.0	300.0 m	556-00115
TTRC+ 100MM	TIPTAG/TIPTAG PU/TULT/TCGT/TLFX	Black (BK)	100.0	300.0 m	556-00103
TTDTHOUT 40MM	TIPTAG/TULT/TCGT/TLFX/TULT DS/TLFX DS	Black (BK)	40.0	300.0 m	556-00139
TTDTHOUT 60MM	TIPTAG/TULT/TCGT/TLFX/TULT DS/TLFX DS	Black (BK)	60.0	300.0 m	556-00140
TTDTHOUT 100MM	TIPTAG/TULT/TCGT/TLFX/TULT DS/TLFX DS	Black (BK)	100.0	300.0 m	556-00141
TT822OUT8 110MM	TULT/TCGT	Silver (SR)	110.0	300.0 m	556-00161
TTRW 30MM	TULT/TCGT	White (WH)	30.0	300.0 m	556-00125
TTRW 60MM	TULT/TCGT	White (WH)	60.0	300.0 m	556-00137
TTRW 100MM	TULT/TCGT	White (WH)	100.0	300.0 m	556-00133

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

RoHS

Thermal Transfer Printer Accessories

• S4000 Cutter

Features and Benefits

- To cut printed tubing and continuous label material at a desired length
- The cutter automatically initialises each time the printer is powered on
- The cutter tray ensures the cut pieces are collected in one place
- The plug and play cutter is simply attached with one Allen screw

Cutter S4000 for both TT4000+ and TrakMark DS.

TYPE	Description	Article-No.
Cutter Tray for S4000	Cutter Tray for S4000	556-03011
S4000 Cutter	S4000 Cutter	556-04025

Subject to technical changes.

RoHS

CE For product specific approvals and specifications please refer to the Appendix.

• P4000 Perforator

Features and Benefits

- To perforate printed tubing and continuous label material at a desired length
- Perforation depth can be adjusted to different thicknesses of the material
- Very useful accessory if tubings are printed with serial numbers
- Plug and play perforator is simply attached with one Allen screw

Perforator P4000 for both TT4000+ and TrakMark DS.

TYPE	Description	Article-No.
P4000 Perforator	Perforator for TT4000+	556-04024

Subject to technical changes.

RoHS

CE For product specific approvals and specifications please refer to the Appendix.

Labelling Software

- **TagPrint Pro**

Easily import a variety of image types into the label design

Use any Windows based font in the label design for complete customization

Layer objects like professional page layout programs

Rulers on top and side allow for exact placement of object

Easily change text color, fill color and border color to make text stand out and accomplish "full reverse" printing

Allow text characters to be stretched or compressed to almost anyheight or width

Draw lines, circles and boxes on the label as a simple way of making the label look more professional

Features and Benefits

- Alphanumeric sequences
- Print to multiple printers at one time
- Save jobs in a queue and print all at one time with 'Print later' function
- Print faster
- Connect or import directly from other databases including Excel, Access, text files
- More bar code types
- Inverse, flip, and mirror image options for graphic images
- Multi-lingual
- Print log available
- Manually adjust font size to 1/10 of a point
- Customize height and width of characters
- Customize line spacing
- And much more!

TYPE	Article-No.
TagPrint Pro 3.0 EMEA	556-00051

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

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

System Requirements	PC running Microsoft Windows XP SP3, Vista SP1 or later, Windows 7 .NET Framework 4, Windows 8 512 MB RAM (XP SP3) 1.0 GB RAM (Vista/Windows 7/ Windows 8) 500 MB available hard disk space