

*In this section of the catalogue you can find selected products at competitive price which complement our traditional range*



Cable Ties in PA6.6

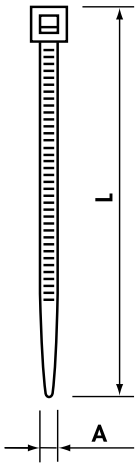
PA 6.6



HF HALOGEN FREE



Material: PA6.6 Polyamide  
 Self-extinguishing V2 (UL 94)  
 Humidity absorption:  
 2,5% (at 50% relative humidity)  
 Operating temperature:  
 From -40°C to +85°C (continuous)  
 From -40°C to +120°C (short periods)  
 Resistant to:  
 oils, greases, oil products, chlorinated solvents.  
 Colour: Natural or Black (Ral 2005)



Black ties have higher UV resistance due to increased carbon black loading

Natural ties offer rapid installation due to the low friction coefficient of the material



Type	L (mm)	A (mm)	Max. Bundle Ø (mm)	Min. Loop Tensile Strength (kg)	Quantity		
G80X2.4	80	2,4	15	8	100		
G80X2.4N					1000		
G80X2.4/M			16		100		
G80X2.4N/M					1000		
G90X2.4	90	2,5	33		100		
G90X2.4N					1000		
G100X2.5			100		40	100	
G100X2.5N						1000	
G100X2.5/M	30	100					
G100X2.5N/M		1000					
G120X2.5	120	2,5	33	100			
G120X2.5N				1000			
G140X2.5			140	40	1000		
G140X2.5N					1000		
G140X2.5/M	53	100					
G140X2.5N/M		1000					
G160X2.5	160	2,8	65	100			
G160X2.5N				1000			
G160X2.5/M			76	1000			
G160X2.5N/M				1000			
G200X2.5	200	3,6	14	100			
G200X2.5N				1000			
G200X2.5/M			18	100			
G200X2.5N/M				1000			
G250X2.8	250	4,8	22	100			
G250X2.8N				1000			
G300X2.8			300	2,8	14	100	
G300X2.8N						1000	
G120X3.6	120	3,6			30	100	
G120X3.6N						1000	
G140X3.6			140	18	33	1000	
G140X3.6N						1000	
G140X3.6/M	35	100					
G140X3.6N/M		1000					
G150X3.6	150	3,6	44	100			
G150X3.6N				1000			
G180X3.6			180	2,8	53	100	
G180X3.6N						1000	
G200X3.6	200	4,8			76	1000	
G200X3.6N						1000	
G200X3.6/M			102	100			
G200X3.6N/M				1000			
G250X3.6	250	4,8	76	100			
G250X3.6N				1000			
G300X3.6			300	2,8	102	1000	
G300X3.6N						1000	
G300X3.6/M	110	1000					
G300X3.6N/M		1000					
G370X3.6	370	3,6	102	100			
G370X3.6N				1000			
G120X4.8	120	4,8	24	22	100		
G120X4.8N					1000		
G160X4.8			160		2,8	38	100
G160X4.8N							1000
G190X4.8	190	4,8				46	1000
G190X4.8N							1000
G190X4.8/M			50		100		
G190X4.8N/M					1000		
G200X4.8	200	4,8	60	100			
G200X4.8N				1000			
G200X4.8/M			70	1000			
G200X4.8N/M				1000			
G250X4.8/M	250	4,8	76	1000			
G250X4.8N/M				1000			
G250X4.8			250	4,8	102	100	
G250X4.8N							1000
G280X4.8	280	2,8			105		100
G280X4.8N							
G300X4.8			300	4,8	110		100
G300X4.8N							
G370X4.8	370	4,8			110		100
G370X4.8N							
G390X4.8	390	4,8	110	100			
G390X4.8N					1000		
G430X4.8	430	4,8	110	100			
G430X4.8N					1000		

Minimum order: 1,000 pcs

Minimum order: 100 pcs

Note: In Type, N = Black

Recommended tools are shown on page 246

The dimensions shown in the table must be considered as nominal. Cembre reserves the right to make changes without prior notice

## CABLE TIES

G series, PA6.6 Polyamide

### Cable Ties in PA6.6

Type	L (mm)	A (mm)	Max. Bundle Ø (mm)	Min. Loop Tensile Strength (kg)	Quantity
G450X4.8	450	4,8	116	22	100
G450X4.8N					
G530X4.8					
G530X4.8N	530	4,8	140	22	
G150X7.6					
G150X7.6N					
G200X7.6	200	7,6	33	55	
G200X7.6N					
G250X7.6					
G250X7.6N	250	7,6	50	80	
G300X7.6					
G300X7.6N					
G370X7.6	370	7,6	76	115	
G370X7.6N					
G430X7.6					
G430X7.6N	430	7,6	102	150	
G530X7.6					
G530X7.6N					
G430X9.0	430	9,0	125	200	
G430X9.0N					
G530X9.0					
G530X9.0N	530	9,0	140	250	
G710X9.0					
G710X9.0N					
G780X9.0	780	9,0	190	300	
G780X9.0N					
G830X9.0					
G830X9.0N	830	9,0	228	350	
G920X9.0					
G920X9.0N					
G1020X9.0	1020	9,0	239	400	
G1020X9.0N					
G1220X9.0					
G1220X9.0N	1220	12,6	263	450	
G230X12.6					
G230X12.6N					
G380X12.6	380	12,6	50	600	
G480X12.6					
G480X12.6N					
G580X12.6	580	12,6	106	750	
G580X12.6N					
G730X12.6					
G730X12.6N	730	12,6	120	900	
G880X12.6					
G880X12.6N					
G1030X12.6	1030	12,6	152	1050	
G1030X12.6N					

Note: In Type, N = Black

Recommended tools are shown on page 246

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G

PA 6.6



HF  
HALOGEN  
FREE



Angled tongue to facilitate easy introduction into the buckle



Rounded corners for increased safety



## CABLE TIES

G series, PA6.6 Polyamide - V0 (UL94)

### Cable Ties in PA6.6 - V0 (UL94)

Type	L (mm)	A (mm)	Max. Bundle Ø (mm)	Min. Loop Tensile Strength (kg)	Quantity	Minimum Order Qty
G90X2.4 V0	90	2,4	16	8	100	1000
G100X2.5/M V0	100		22			
G140X2.5/M V0	140	2,5	33	18	1000	
G200X2.5/M V0	200		53			
G150X3.6 V0	150	3,6	35	22	100	
G200X4.8/M V0	200		50			
G370X4.8 V0	370	4,8	102	80	100	
G430X4.8 V0	430		110			
G710X9.0 V0	710	9,0	190	80	100	

Recommended tools are shown on page 246

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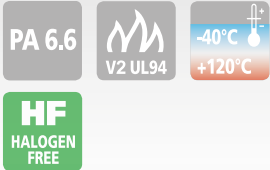
G V0

PA 6.6

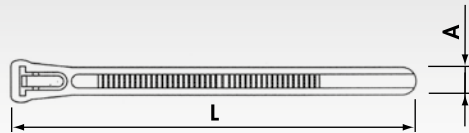


HF  
HALOGEN  
FREE

Same features as G series except: self-extinguishing V0 (UL 94)



Same features as G series.  
Easy installation without tools.  
Released by pressure on the tongue.  
Suitable for temporary locking.



### Releasable cable ties in PA6.6

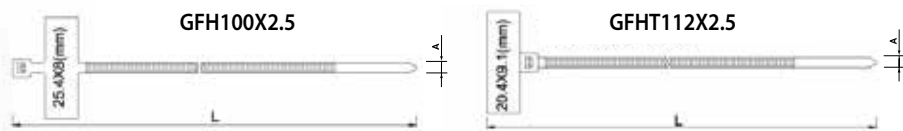
Type	L (mm)	A (mm)	Max. Bundle Ø (mm)	Min. Loop Tensile Strength (kg)	Quantity
GR100X7.6N	100	7,6	20	22,2	100
GR120X7.6N	120		30		
GR150X7.6N	150		35		
GR200X7.6N	200		50		
GR250X7.6N	250		66		
GR300X7.6N	300		80		
GR370X7.6N	370		102		

Recommended tools are shown on page 246

The dimensions shown in the table must be considered as nominal. Cembre reserves the right to make changes without prior notice



Same features as G series.  
Quick and easy identification of bundled conductors.  
Write on panel with Felt tip pen.



### Markable cable ties in PA6.6

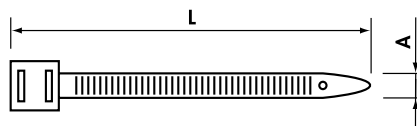
Type	L (mm)	A (mm)	Max. Bundle Ø (mm)	Min. Loop Tensile Strength (kg)	Quantity
GFH100X2.5	100	2,5	18	8,1	100
GFHT112X2.5	112				

Recommended tools are shown on page 246

The dimensions shown in the table must be considered as nominal. Cembre reserves the right to make changes without prior notice



Resistant to: UV, salt atmosphere, oils, greases, oil products  
Colour: Black



Material: Elastomerized Polymer on Polyamide base  
Self-extinguishing HB (UL94)  
Halogen free  
Operating temperature:  
From -45°C to +85°C (continuous)  
From -45°C to +120°C (short periods)

### Cable Ties in PA12 Polyamide

Type	Head Type	L (mm)	A (mm)	Min. Bundle Ø (mm)	Max. Bundle Ø (mm)	Min. Loop Tensile Strength (kg)	Quantity
1618.90	single	180	9	15	40	40	100
1626.90	double	260	9	30	60	55	100
1636.90	double	360	9	30	93	55	100
1651.90	double	510	9	70	140	55	100
1676.90	double	760	9	70	220	55	100

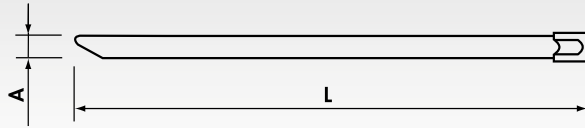
Recommended tools are shown on page 246

The dimensions shown in the table must be considered as nominal. Cembre reserves the right to make changes without prior notice

## CABLE TIES

**GX**

GX series, in Stainless Steel AISI 304

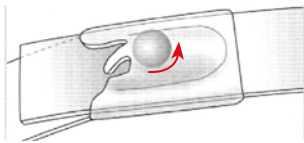


### Cable Ties in Stainless Steel

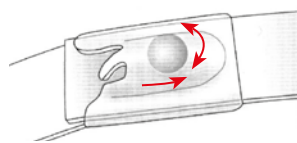
Type	L (mm)	A (mm)	Max. Bundle Ø (mm)	Min. Loop Tensile Strength (kg)	Quantity
GX200X4.5	200	4,5	50	46	100
GX300X4.5	300		76		
GX370X4.5	370		102		
GX520X4.5	520		156		
GX370X7.9	370	7,9	102	114	
GX680X7.9	680		207		
GX1020X7.9	1020		312		

Recommended tools are shown on page 246

The dimensions shown in the table must be considered as nominal. Cembre reserves the right to make changes without prior notice



Insert the tongue into the buckle. The internal locking ball rolls freely as the tie is tightened.



Once the correct tension is reached, use the specific tool to trim the tongue. The ball then wedges into the buckle locking it tightly against both the top and bottom of the tie.

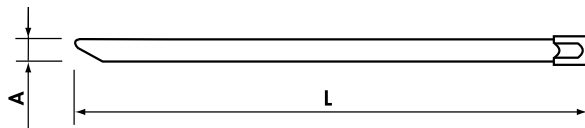


Material: Stainless Steel AISI 304  
 Unique ball locking mechanism that allows simple and rapid installation and secure locking.  
 Operating temperature: From -80°C to +500°C  
 High tensile strength.  
 Non-flammability.  
 High resistance to acetic acid, alkalis, sulphuric acid, corrosion, etc.  
 In general very resistant to most hostile environments.

## CABLE TIES

**GXAC**

GXAC series, 316 Stainless Steel coated with Polyester

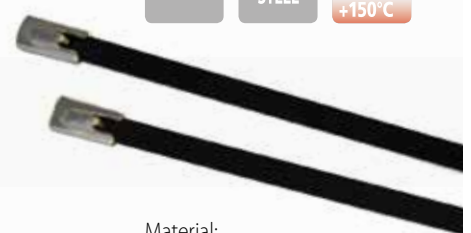


### Coated Stainless Steel cable ties

Type	L (mm)	A (mm)	Max. Bundle Ø (mm)	Min. Loop Tensile Strength (kg)	Quantity
GXAC125X4.6	125	4,6	38,0	46	100
GXAC150X4.6	150		46,0		
GXAC200X4.6	200		61,9		
GXAC260X4.6	260		81,0		
GXAC290X4.6	290		90,6		
GXAC360X4.6	360		112,8		
GXAC520X4.6	520		163,8		
GXAC680X4.6	680		214,8		
GXAC840X4.6	840		265,7		
GXAC200X7.9	200		7,9		
GXAC290X7.9	290	90,6			
GXAC360X7.9	360	112,8			
GXAC520X7.9	520	163,8			
GXAC680X7.9	680	214,8			
GXAC840X7.9	840	265,7			

Recommended tools are shown on page 246

The dimensions shown in the table must be considered as nominal. Cembre reserves the right to make changes without prior notice



Material: 316 stainless steel for the most corrosive environments coated with Polyester for insulation purpose, and a better outdoor application  
 Colour: Black  
 Smooth surface and rounded edges assures cable protection and user safety  
 Equipped with unique ball locking mechanism that allows simple and rapid installation and secure locking  
 Operating temperature: da -40°C a +150°C  
 High tensile strength  
 Very resistant to ultraviolet radiation and chemical corrosion  
 Non flammable



PA6.6 Polyamide

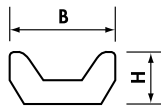
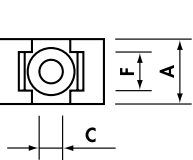
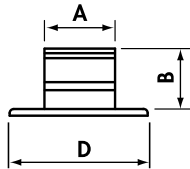
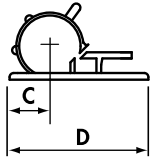
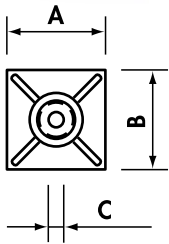
PA 6.6



Material: PA6.6 Polyamide  
 Self-extinguishing V2 (UL 94)  
 Humidity absorption:  
 2,5% (at 50% relative humidity)  
 Operating temperature:  
 From -40°C to +85°C (continuous)  
 From -40°C to +120°C (short periods)

Resistant to:  
 oils, bases, greases, oil products, chlorinated solvents.  
 Colour: Natural

**Attention:**  
**acrylic adhesive; to obtain the best result, wait at least 6 - 8 hours before applying the load.**



### Self adhesive cable tie bases in PA6.6

Type	Max Tie (mm)	A (mm)	B (mm)	C (mm)	H (mm)	Fixing screw hole Ø (mm)	Quantity
AB13*	2,8	13,0	13,0	3,2	3,2	-	100
AB19*	3,6	19,0	19,0	4,0	4,4	3,1	100
AB28*	4,8	28,0	28,0	5,3	5,7	5,5	100

\*Add to Ref: N for Black



### Self adhesive cable clips in PA6.6

Type	Cable Ø (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Quantity
CC8.9	8-9	9,0	12,0	8,0	21,5	100
CC9.12	9-12	12,0	15,0	8,2	21,5	100



### Cable tie saddle clamps in PA6.6

Type	Max Tie (mm)	A (mm)	B (mm)	C (mm)	F (mm)	H (mm)	Quantity
SS4.8-3.7	4,8	9,5	15	3,7	5,0	7,2	100
SS4.8-4.5	4,8	9,5	15	4,5	5,0	7,2	100
SS9-4.5	9	16,0	22	4,5	9,2	9,7	100
SS9-5	9	16,0	22	5,0	9,2	9,7	100
SS9-6.4	9	16,0	22	6,4	9,2	9,7	100

## GH8

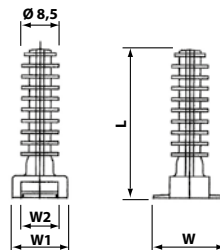
## ACCESSORIES

PA6.6 Polyamide

PA 6.6



Same features as G series.  
 Push into Ø 8 mm hole.  
 Cable tie inserted through slot in head.



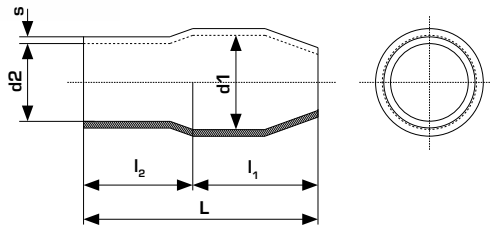
### Stud fixing for cable ties in PA6.6

Type	W (mm)	W1 (mm)	W2 (mm)	L (mm)	Fixing hole Ø (mm)	Quantity
GH8	20	15	10	40,5	8	100

# INSULATED COVERS

ES

For uninsulated connectors



Insulated covers in PVC for general use with Cembre A-M copper tube lugs characterised by environmental tolerance, flexibility, not inflammability & stable performance. Widely used for the insulation and protection of connections and electrical terminations.

**General features:**

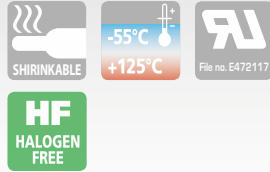
- Material: PVC
- Self extinguishing (UL94): V0
- Working temperature: 85 °C
- Colours: red, yellow, blue, black, grey, brown.

Type	Connectors A-M*	d1 Ø	d2 Ø	l1 ±1	l2 ±1	L ±2	s ±0.2	Quantity	Minimum Order Qty
ES03-..	A03	3.3	3.1	7.0	8.0	15.0	0.6	100	3,000
ES06-..	A06	4.5	3.7	8.0	8.0	16.0	0.7	100	
ES1-..	A1	5.7	4.1	9.0	9.0	18.0	0.8	100	
ES2-..	A2	7.2	6.2	11.0	10.0	21.0	1.0	100	1,000
ES3-..	A3	10.0	8.0	15.0	13.0	28.0	1.1	100	
ES5-..	A5	12.0	9.5	15.0	14.0	29.0	1.2	100	
ES10-..	A7, A9, A10	14.0	11.8	17.0	17.0	34.0	1.4	100	500
ES14-..	A12, A14	17.0	13.9	22.0	20.0	42.0	1.5	100	
ES19-..	A17, A19	19.0	16.0	25.0	21.0	46.0	1.5	50	
ES24-..	A20, A24	22.0	18.0	31.0	24.0	55.0	1.7	50	200
ES30-..	A29, A30	24.0	20.0	32.0	28.0	60.0	1.8	50	
ES37-..	A35, A37	26.0	22.0	34.0	31.0	65.0	1.8	50	
ES40-..	A40	32.2	24.0	38.0	31.0	69.0	2.0	50	100
ES48-..	A48	36.5	27.2	42.0	33.0	75.0	2.0	50	
ES80-..	A60, A80	36.7	30.0	42.0	33.0	75.0	2.0	25	

Add the suffix corresponding to the selected colour to the reference:

-BU blue, -GY grey, -BR brown, -BK black, -RE red, -YE yellow,

\* See A-M type copper tube lugs on pages 28-29, 31  
 \*\* Depending on the diameter of the insulated cable



Heat-shrinkable Polyolefin tubing coil for general use; is environmentally neutral, flexible, not inflammable and offers fast heat shrinkage and stable performance.

Main uses include insulation and protection of electrical conductors, connectors and terminations; protection of metal tubes from corrosion; protection of antennae and various identification applications.

For general characteristics and technical specifications see page 242.

- Colours: Black, Red, White, Blue, Transparent, Yellow, Green, Grey, Brown, Yellow/Green.
- Packaging: Coil on Reel

Type	Coil Length	before shrinking		after shrinking		Colour
		Internal Ø mm	Internal Ø mm	Thickness mm	Colour	
TCS12X200BK	200 m	Ø 1,1 mm	Ø 0,50 mm	0,22 mm	BLACK	●
TCS16X200BK	200 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	BLACK	●
TCS24X200BK	200 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	BLACK	●
TCS32X200BK	200 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	BLACK	●
TCS48X100BK	100 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	BLACK	●
TCS64X100BK	100 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	BLACK	●
TCS95X100BK	100 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	BLACK	●
TCS127X100BK	100 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	BLACK	●
TCS160X100BK	100 m	Ø 16,5 mm	Ø 8,00 mm	0,70 mm	BLACK	●
TCS190X100BK	100 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	BLACK	●
TCS254X50BK	50 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	BLACK	●
TCS320X50BK	50 m	Ø 31,5 mm	Ø 15,0 mm	0,95 mm	BLACK	●
TCS381X50BK	50 m	Ø 36,5 mm	Ø 17,5 mm	1,00 mm	BLACK	●
TCS508X25BK	25 m	Ø 50,0 mm	Ø 25,0 mm	1,00 mm	BLACK	●
TCS762X25BK	25 m	Ø 70,0 mm	Ø 36,0 mm	1,30 mm	BLACK	●
TCS1016X25BK	25 m	Ø 100,0 mm	Ø 51,0 mm	1,46 mm	BLACK	●
TCS1260X25BK	25 m	Ø 120,0 mm	Ø 61,0 mm	1,56 mm	BLACK	●
TCS1500X25BK	25 m	Ø 150,0 mm	Ø 76,0 mm	1,56 mm	BLACK	●
TCS16X200RE	200 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	RED	●
TCS24X200RE	200 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	RED	●
TCS32X200RE	200 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	RED	●
TCS48X100RE	100 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	RED	●
TCS64X100RE	100 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	RED	●
TCS95X100RE	100 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	RED	●
TCS127X100RE	100 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	RED	●
TCS190X100RE	100 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	RED	●
TCS254X50RE	50 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	RED	●
TCS16X200WH	200 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	WHITE	○
TCS20X200WH	200 m	Ø 2,0 mm	Ø 0,85 mm	0,32 mm	WHITE	○
TCS24X200WH	200 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	WHITE	○
TCS32X200WH	200 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	WHITE	○
TCS48X100WH	100 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	WHITE	○
TCS64X100WH	100 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	WHITE	○
TCS95X100WH	100 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	WHITE	○
TCS127X100WH	100 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	WHITE	○
TCS190X100WH	100 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	WHITE	○
TCS254X50WH	50 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	WHITE	○
TCS16X200BU	200 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	BLUE	●
TCS24X200BU	200 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	BLUE	●
TCS32X200BU	200 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	BLUE	●
TCS48X100BU	100 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	BLUE	●
TCS64X100BU	100 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	BLUE	●
TCS95X100BU	100 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	BLUE	●
TCS127X100BU	100 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	BLUE	●
TCS190X100BU	100 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	BLUE	●
TCS254X50BU	50 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	BLUE	●
TCS381X50BU	50 m	Ø 36,5 mm	Ø 17,5 mm	1,00 mm	BLUE	●



# TERMOCOIL HEAT-SHRINKABLE TUBING

TCS

flame-retardant Polyolefin - shrinkage ratio 2÷1

Type	Coil Length	before shrinking		after shrinking		Colour	
		Internal Ø mm	Internal Ø mm	Thickness mm	Thickness mm		
TCS12X200TR	200 m	Ø 1,1 mm	Ø 0,50 mm	0,22 mm	0,22 mm	TRANSPARENT	○
TCS16X200TR	200 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	TRANSPARENT	○
TCS24X200TR	200 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	TRANSPARENT	○
TCS32X200TR	200 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	TRANSPARENT	○
TCS48X100TR	100 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	TRANSPARENT	○
TCS64X100TR	100 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	TRANSPARENT	○
TCS95X100TR	100 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	TRANSPARENT	○
TCS127X100TR	100 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	TRANSPARENT	○
TCS160X100TR	100 m	Ø 16,5 mm	Ø 8,00 mm	0,70 mm	0,70 mm	TRANSPARENT	○
TCS190X100TR	100 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	TRANSPARENT	○
TCS254X50TR	50 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	TRANSPARENT	○
TCS320X50BK	50 m	Ø 31,5 mm	Ø 15,0 mm	0,95 mm	0,95 mm	TRANSPARENT	○
TCS381X50TR	50 m	Ø 36,5 mm	Ø 17,5 mm	1,00 mm	1,00 mm	TRANSPARENT	○
TCS508X25TR	25 m	Ø 50,0 mm	Ø 25,0 mm	1,00 mm	1,00 mm	TRANSPARENT	○
TCS762X25TR	25 m	Ø 70,0 mm	Ø 36,0 mm	1,30 mm	1,30 mm	TRANSPARENT	○
TCS1016X25TR	25 m	Ø 100,0 mm	Ø 51,0 mm	1,46 mm	1,46 mm	TRANSPARENT	○
TCS1260X25TR	25 m	Ø 120,0 mm	Ø 61,0 mm	1,56 mm	1,56 mm	TRANSPARENT	○
TCS1500X25TR	25 m	Ø 150,0 mm	Ø 76,0 mm	1,56 mm	1,56 mm	TRANSPARENT	○
TCS16X200YE	200 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	YELLOW	●
TCS24X200YE	200 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	YELLOW	●
TCS32X200YE	200 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	YELLOW	●
TCS48X100YE	100 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	YELLOW	●
TCS64X100YE	100 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	YELLOW	●
TCS95X100YE	100 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	YELLOW	●
TCS127X100YE	100 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	YELLOW	●
TCS190X100YE	100 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	YELLOW	●
TCS254X50YE	50 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	YELLOW	●
TCS16X200GN	200 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	GREEN	●
TCS24X200GN	200 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	GREEN	●
TCS32X200GN	200 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	GREEN	●
TCS48X100GN	100 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	GREEN	●
TCS64X100GN	100 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	GREEN	●
TCS95X100GN	100 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	GREEN	●
TCS127X100GN	100 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	GREEN	●
TCS190X100GN	100 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	GREEN	●
TCS254X50GN	50 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	GREEN	●
TCS16X200GY	200 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	GREY	●
TCS24X200GY	200 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	GREY	●
TCS32X200GY	200 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	GREY	●
TCS48X100GY	100 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	GREY	●
TCS64X100GY	100 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	GREY	●
TCS95X100GY	100 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	GREY	●
TCS127X100GY	100 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	GREY	●
TCS190X100GY	100 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	GREY	●
TCS254X50GY	50 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	GREY	●
TCS381X50GY	50 m	Ø 36,5 mm	Ø 17,5 mm	1,00 mm	1,00 mm	GREY	●
TCS16X200BR	200 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	BROWN	●
TCS24X200BR	200 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	BROWN	●
TCS32X200BR	200 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	BROWN	●
TCS48X100BR	100 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	BROWN	●
TCS64X100BR	100 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	BROWN	●
TCS95X100BR	100 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	BROWN	●
TCS127X100BR	100 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	BROWN	●
TCS190X100BR	100 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	BROWN	●
TCS254X50BR	50 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	BROWN	●
TCS381X50BR	50 m	Ø 36,5 mm	Ø 17,5 mm	1,00 mm	1,00 mm	BROWN	●
TCS32X200Y/G	200 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	YELLOW/GREEN	●
TCS48X100Y/G	100 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	YELLOW/GREEN	●
TCS64X100Y/G	100 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	YELLOW/GREEN	●
TCS95X100Y/G	100 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	YELLOW/GREEN	●
TCS127X100Y/G	100 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	YELLOW/GREEN	●
TCS190X100Y/G	100 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	YELLOW/GREEN	●
TCS254X50Y/G	50 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	YELLOW/GREEN	●
TCS381X50Y/G	50 m	Ø 36,5 mm	Ø 17,5 mm	1,00 mm	1,00 mm	YELLOW/GREEN	●
TCS508X25Y/G	25 m	Ø 50,0 mm	Ø 25,0 mm	1,00 mm	1,00 mm	YELLOW/GREEN	●





Heat-shrinkable Polyolefin tubing strip for general use; is environmentally neutral, flexible, not inflammable and offers fast heat shrinkage and stable performance.

Main uses include insulation and protection of electrical conductors, connectors and terminations; protection of metal tubes from corrosion; protection of antennae and various identification applications.

For general characteristics and technical specifications see page 242.

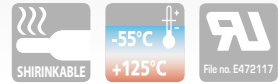
- Colours: Black, Red, White, Blue, Transparent, Yellow, Green, Grey, Brown, Yellow/Green.
- Packaging: Strips in Box

Type	Strip Length	before shrinking		after shrinking		Colour	Quantity Strips per box
		Internal Ø mm	Internal Ø mm	Thickness mm	Thickness mm		
TSS12BK	1,22 m	Ø 1,1 mm	Ø 0,5 mm	0,22 mm	0,22 mm	BLACK ●	30
TSS16BK	1,22 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	BLACK ●	30
TSS24BK	1,22 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	BLACK ●	30
TSS32BK	1,22 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	BLACK ●	30
TSS48BK	1,22 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	BLACK ●	30
TSS64BK	1,22 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	BLACK ●	30
TSS95BK	1,22 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	BLACK ●	20
TSS127BK	1,22 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	BLACK ●	15
TSS190BK	1,22 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	BLACK ●	10
TSS254BK	1,22 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	BLACK ●	6
TSS380BK	1,22 m	Ø 36,5 mm	Ø 17,5 mm	1,00 mm	1,00 mm	BLACK ●	4
TSS510BK	1,22 m	Ø 50,0 mm	Ø 25,0 mm	1,00 mm	1,00 mm	BLACK ●	2
TSS12RE	1,22 m	Ø 1,1 mm	Ø 0,5 mm	0,22 mm	0,22 mm	RED ●	30
TSS16RE	1,22 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	RED ●	30
TSS24RE	1,22 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	RED ●	30
TSS32RE	1,22 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	RED ●	30
TSS48RE	1,22 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	RED ●	30
TSS64RE	1,22 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	RED ●	30
TSS95RE	1,22 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	RED ●	20
TSS127RE	1,22 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	RED ●	15
TSS190RE	1,22 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	RED ●	10
TSS254RE	1,22 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	RED ●	6
TSS380RE	1,22 m	Ø 36,5 mm	Ø 17,5 mm	1,00 mm	1,00 mm	RED ●	4
TSS510RE	1,22 m	Ø 50,0 mm	Ø 25,0 mm	1,00 mm	1,00 mm	RED ●	2
TSS12WH	1,22 m	Ø 1,1 mm	Ø 0,5 mm	0,22 mm	0,22 mm	WHITE ○	30
TSS16WH	1,22 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	WHITE ○	30
TSS24WH	1,22 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	WHITE ○	30
TSS32WH	1,22 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	WHITE ○	30
TSS48WH	1,22 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	WHITE ○	30
TSS64WH	1,22 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	WHITE ○	30
TSS95WH	1,22 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	WHITE ○	20
TSS127WH	1,22 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	WHITE ○	15
TSS190WH	1,22 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	WHITE ○	10
TSS254WH	1,22 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	WHITE ○	6
TSS380WH	1,22 m	Ø 36,5 mm	Ø 17,5 mm	1,00 mm	1,00 mm	WHITE ○	4
TSS510WH	1,22 m	Ø 50,0 mm	Ø 25,0 mm	1,00 mm	1,00 mm	WHITE ○	2
TSS12BU	1,22 m	Ø 1,1 mm	Ø 0,5 mm	0,22 mm	0,22 mm	BLUE ●	30
TSS16BU	1,22 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	BLUE ●	30
TSS24BU	1,22 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	BLUE ●	30
TSS32BU	1,22 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	BLUE ●	30
TSS48BU	1,22 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	BLUE ●	30
TSS64BU	1,22 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	BLUE ●	30
TSS95BU	1,22 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	BLUE ●	20
TSS127BU	1,22 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	BLUE ●	15
TSS190BU	1,22 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	BLUE ●	10
TSS254BU	1,22 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	BLUE ●	6
TSS380BU	1,22 m	Ø 36,5 mm	Ø 17,5 mm	1,00 mm	1,00 mm	BLUE ●	4
TSS510BU	1,22 m	Ø 50,0 mm	Ø 25,0 mm	1,00 mm	1,00 mm	BLUE ●	2
TSS12TR	1,22 m	Ø 1,1 mm	Ø 0,5 mm	0,22 mm	0,22 mm	TRANSPARENT ○	30
TSS16TR	1,22 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	TRANSPARENT ○	30
TSS24TR	1,22 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	TRANSPARENT ○	30
TSS32TR	1,22 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	TRANSPARENT ○	30
TSS48TR	1,22 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	TRANSPARENT ○	30
TSS64TR	1,22 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	TRANSPARENT ○	30
TSS95TR	1,22 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	TRANSPARENT ○	20
TSS127TR	1,22 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	TRANSPARENT ○	15
TSS190TR	1,22 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	TRANSPARENT ○	10
TSS254TR	1,22 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	TRANSPARENT ○	6
TSS380TR	1,22 m	Ø 36,5 mm	Ø 17,5 mm	1,00 mm	1,00 mm	TRANSPARENT ○	4
TSS510TR	1,22 m	Ø 50,0 mm	Ø 25,0 mm	1,00 mm	1,00 mm	TRANSPARENT ○	2

# TERMOSTRIP HEAT-SHRINKABLE TUBING

TSS

flame-retardant Polyolefin - shrinkage ratio 2÷1



Type	Strip Length	before shrinking		after shrinking		Colour	Quantity Strips per box
		Internal Ø mm	Internal Ø mm	Thickness mm	Thickness mm		
TSS12YE	1,22 m	Ø 1,1 mm	Ø 0,5 mm	0,22 mm	0,22 mm	YELLOW	30
TSS16YE	1,22 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	YELLOW	30
TSS24YE	1,22 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	YELLOW	30
TSS32YE	1,22 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	YELLOW	30
TSS48YE	1,22 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	YELLOW	30
TSS64YE	1,22 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	YELLOW	30
TSS95YE	1,22 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	YELLOW	20
TSS127YE	1,22 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	YELLOW	15
TSS190YE	1,22 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	YELLOW	10
TSS254YE	1,22 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	YELLOW	6
TSS380YE	1,22 m	Ø 36,5 mm	Ø 17,5 mm	1,00 mm	1,00 mm	YELLOW	4
TSS510YE	1,22 m	Ø 50,0 mm	Ø 25,0 mm	1,00 mm	1,00 mm	YELLOW	2
TSS12GN	1,22 m	Ø 1,1 mm	Ø 0,5 mm	0,22 mm	0,22 mm	GREEN	30
TSS16GN	1,22 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	GREEN	30
TSS24GN	1,22 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	GREEN	30
TSS32GN	1,22 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	GREEN	30
TSS48GN	1,22 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	GREEN	30
TSS64GN	1,22 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	GREEN	30
TSS95GN	1,22 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	GREEN	20
TSS127GN	1,22 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	GREEN	15
TSS190GN	1,22 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	GREEN	10
TSS254GN	1,22 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	GREEN	6
TSS380GN	1,22 m	Ø 36,5 mm	Ø 17,5 mm	1,00 mm	1,00 mm	GREEN	4
TSS510GN	1,22 m	Ø 50,0 mm	Ø 25,0 mm	1,00 mm	1,00 mm	GREEN	2
TSS12GY	1,22 m	Ø 1,1 mm	Ø 0,5 mm	0,22 mm	0,22 mm	GREY	30
TSS16GY	1,22 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	GREY	30
TSS24GY	1,22 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	GREY	30
TSS32GY	1,22 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	GREY	30
TSS48GY	1,22 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	GREY	30
TSS64GY	1,22 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	GREY	30
TSS95GY	1,22 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	GREY	20
TSS127GY	1,22 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	GREY	15
TSS190GY	1,22 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	GREY	10
TSS254GY	1,22 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	GREY	6
TSS380GY	1,22 m	Ø 36,5 mm	Ø 17,5 mm	1,00 mm	1,00 mm	GREY	4
TSS510GY	1,22 m	Ø 50,0 mm	Ø 25,0 mm	1,00 mm	1,00 mm	GREY	2
TSS12BR	1,22 m	Ø 1,1 mm	Ø 0,5 mm	0,22 mm	0,22 mm	BROWN	30
TSS16BR	1,22 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	BROWN	30
TSS24BR	1,22 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	BROWN	30
TSS32BR	1,22 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	BROWN	30
TSS48BR	1,22 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	BROWN	30
TSS64BR	1,22 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	BROWN	30
TSS95BR	1,22 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	BROWN	20
TSS127BR	1,22 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	BROWN	15
TSS190BR	1,22 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	BROWN	10
TSS254BR	1,22 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	BROWN	6
TSS380BR	1,22 m	Ø 36,5 mm	Ø 17,5 mm	1,00 mm	1,00 mm	BROWN	4
TSS510BR	1,22 m	Ø 50,0 mm	Ø 25,0 mm	1,00 mm	1,00 mm	BROWN	2
TSS12Y/G	1,22 m	Ø 1,1 mm	Ø 0,5 mm	0,22 mm	0,22 mm	YELLOW/GREEN	30
TSS16Y/G	1,22 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	YELLOW/GREEN	30
TSS24Y/G	1,22 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	YELLOW/GREEN	30
TSS32Y/G	1,22 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	YELLOW/GREEN	30
TSS48Y/G	1,22 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	YELLOW/GREEN	30
TSS64Y/G	1,22 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	YELLOW/GREEN	30
TSS95Y/G	1,22 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	YELLOW/GREEN	20
TSS127Y/G	1,22 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	YELLOW/GREEN	15
TSS190Y/G	1,22 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	YELLOW/GREEN	10
TSS254Y/G	1,22 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	YELLOW/GREEN	6
TSS380Y/G	1,22 m	Ø 36,5 mm	Ø 17,5 mm	1,00 mm	1,00 mm	YELLOW/GREEN	4



Heat-shrinkable Polyolefin tubing for general use; is environmentally neutral, flexible, not inflammable and offers fast heat shrinkage and stable performance.

Main uses include insulation and protection of electrical conductors, connectors and terminations; protection of metal tubes from corrosion; protection of antennae and various identification applications.

### General characteristics:

- Operating temperature: -55°C + 125°C
- Minimum shrinkage temperature: 70°C
- Temperature for complete shrinkage: 110°C
- RoHS compliant
- Colours: Black, Red, White, Blue, Grey, Brown, Yellow/Green.
- Packaging: Roll in Dispenser Box

### Technical Specifications:

Property	Test Method	Performance
Traction resistance (MPa):	ASRM D2671	≥10.4
Elongation at failure (%):	ASRM D2671	≥200
Traction resistance after heat aging (MPa):	UL 224 158°Cx168hr	≥7.3
Elongation at failure after heat aging (%):	UL 224 158°Cx168hr	≥100
Heat resistance:	UL 224 250°Cx4hr	No failure
Low temperature flexibility:	UL 224 -30°Cx4hr	No failure
Dielectric strength (kv/mm):	IEC 243	≥15
Insulation resistance:	600V UL 224	No perforation at 2500V
Volume resistance (Ω.cm):	IEC 93	≥1x10 <sup>14</sup>
Corrosive action:	UL 224 158°Cx168hr	Not corrosive
Copper compatibility:	UL 224 158°Cx168hr	Not corrosive
Flammability:	UL 224	VW-1

Type	Reel Length	before shrinking		after shrinking		Colour
		Internal Ø mm	Internal Ø mm	Thickness mm	Thickness mm	
TBS16X20BK	20 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	BLACK
TBS24X20BK	20 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	BLACK
TBS32X10BK	10 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	BLACK
TBS48X10BK	10 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	BLACK
TBS64X10BK	10 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	BLACK
TBS95X10BK	10 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	BLACK
TBS127X10BK	10 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	BLACK
TBS190X5BK	5 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	BLACK
TBS254X5BK	5 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	BLACK
TBS16X20RE	20 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	RED
TBS24X20RE	20 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	RED
TBS32X10RE	10 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	RED
TBS48X10RE	10 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	RED
TBS64X10RE	10 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	RED
TBS95X10RE	10 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	RED
TBS127X10RE	10 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	RED
TBS190X5RE	5 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	RED
TBS254X5RE	5 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	RED
TBS16X20WH	20 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	WHITE
TBS24X20WH	20 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	WHITE
TBS32X20WH	10 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	WHITE
TBS48X10WH	10 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	WHITE
TBS64X10WH	10 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	WHITE
TBS95X10WH	10 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	WHITE
TBS127X10WH	10 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	WHITE
TBS190X5WH	5 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	WHITE
TBS254X5WH	5 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	WHITE
TBS16X20BU	20 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	BLUE
TBS24X20BU	20 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	BLUE
TBS32X10BU	10 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	BLUE
TBS48X10BU	10 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	BLUE
TBS64X10BU	10 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	BLUE
TBS95X10BU	10 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	BLUE
TBS127X10BU	10 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	BLUE
TBS190X5BU	5 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	BLUE
TBS254X5BU	5 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	BLUE

Type	Reel Length	before shrinking		after shrinking		Colour
		Internal Ø mm	Internal Ø mm	Thickness mm	Thickness mm	
TBS16X20GY	20 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	GREY
TBS24X20GY	20 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	GREY
TBS32X10GY	10 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	GREY
TBS48X10GY	10 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	GREY
TBS64X10GY	10 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	GREY
TBS95X10GY	10 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	GREY
TBS127X10GY	10 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	GREY
TBS190X5GY	5 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	GREY
TBS254X5GY	5 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	GREY
TBS16X20BR	20 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	BROWN
TBS24X20BR	20 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	BROWN
TBS32X10BR	10 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	BROWN
TBS48X10BR	10 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	BROWN
TBS64X10BR	10 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	BROWN
TBS95X10BR	10 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	BROWN
TBS127X10BR	10 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	BROWN
TBS190X5BR	5 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	BROWN
TBS254X5BR	5 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	BROWN
TBS16X20Y/G	20 m	Ø 1,5 mm	Ø 0,65 mm	0,28 mm	0,28 mm	YELLOW/GREEN
TBS24X20Y/G	20 m	Ø 2,5 mm	Ø 1,00 mm	0,35 mm	0,35 mm	YELLOW/GREEN
TBS32X10Y/G	10 m	Ø 3,0 mm	Ø 1,30 mm	0,38 mm	0,38 mm	YELLOW/GREEN
TBS48X10Y/G	10 m	Ø 4,5 mm	Ø 2,00 mm	0,45 mm	0,45 mm	YELLOW/GREEN
TBS64X10Y/G	10 m	Ø 6,5 mm	Ø 3,00 mm	0,55 mm	0,55 mm	YELLOW/GREEN
TBS95X10Y/G	10 m	Ø 9,5 mm	Ø 4,50 mm	0,60 mm	0,60 mm	YELLOW/GREEN
TBS127X10Y/G	10 m	Ø 12,5 mm	Ø 6,00 mm	0,60 mm	0,60 mm	YELLOW/GREEN
TBS190X5Y/G	5 m	Ø 19,0 mm	Ø 9,00 mm	0,80 mm	0,80 mm	YELLOW/GREEN
TBS254X5Y/G	5 m	Ø 26,0 mm	Ø 12,5 mm	0,90 mm	0,90 mm	YELLOW/GREEN

cast resin, low voltage through joints

### Shells

Manufactured from transparent synthetic material which allows a visual check of the connections before and after casting.

The halves of the shell are joined by snap closures which avoid further fixing or sealing.

Shells are left on after casting to provide additional protection against mechanical abrasion, chemical agents and severe weather conditions.

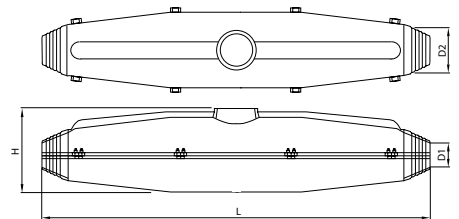


### STRAIGHT JOINTS

Type	Dimensions mm				Dimensions Cable	
	L	H	D1(1)	D2(1)	Cable Diameter mm	Indicative Cable Section (2) mm <sup>2</sup>
N11	200	50	8	26	8 - 25	4C x 1,5 ÷ 10
N12	260	67	16	32	16 - 31	4C x 10 ÷ 25
N13	360	75	21	38	21 - 36	4C x 35 ÷ 50
N14	400	100	26	41	26 - 39	4C x 50 ÷ 70
N15	530	130	35	56	35 - 54	4C x 95 ÷ 150
N16	700	150	47	74	45 - 72	4C x 185 ÷ 300

(1) Internal dimension of the shell

(2) Indicative cable sections are approximate and concern only harmonised, PVC or Rubber insulated cables at a working voltage of 0,6/1 kV

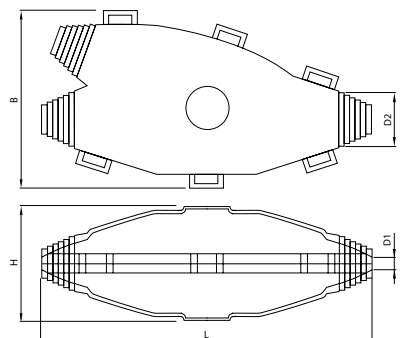


### BRANCH JOINTS

Type	Dimensions mm					Dimensions Cable		
	L	H	B	D1(1)	D2(1)	Cable Diameter mm	Indicative Cable Section (2) mm <sup>2</sup>	
							Passante	Derivato
NY00	150	47	70	11	20	11 - 20	4C x 1,5 ÷ 2,5	4C x 1,5
NY0	175	60	94	6	22	6 - 21	4C x 4 ÷ 10	4C x 4
NY1	225	75	110	9	26	9 - 24	4C x 6 ÷ 25	4C x 16

(1) Internal dimension of the shell

(2) Indicative cable sections are approximate and concern only harmonised, PVC or Rubber insulated cables at a working voltage of 0,6/1 kV





**Cast resin technology**

PUR-cast resin technology was introduced to seal and protect power, signal and telephone cable joints.

This new generation of two component cast resin has been developed for the most demanding environments and circumstances.

Cembre cast resin joints meet the requirements of EN50393 and DIN VDE 57291-2 (VDE0291).

Quick setting properties in humid or even cold conditions make it a fast and reliable solution.

No external measuring or mixing is required as this takes place within an Aluminium foil pouch, avoiding spillage and errors during installation.

Unmixed resin components have a 48 month shelf-life even in the most difficult storage conditions.

Shells are made of durable PET resulting in good hydrophobic properties and excellent impact resistance, while good adhesion to PVC and metals assures a watertight seal.

Technical characteristic	Test result	Requirement of DIN VDE 0291
Pot life @ 5°C 23°C 35°C	35 min 20 min 15 min	product conforms ± 30%
Reactant open cup flash point	> 200 °C	> 55
Tensile strength	≥ 8.0 Mpa	≥ 5.0
Hot aging	-5 Shore A	-7
Adhesive	> 1500 CP.S	-
Elongation at break	≥ 100%	≥ 50%
Gel time for 300 ml @ Pouch >1000 ml Pouch <1000 ml	23 °C 26 min 17 min	product conforms ± 10% product conforms ± 10%
Max. reaction temp.	60 °C / 333 K	product conforms ± 10%
Total vol. variability when hardening	6 %	max. 6.5 %
Cast resin component open cup flash point	> 200 °C	> 100
Density	1.07 g / cm <sup>3</sup>	-
Impact strength	> 10 kJ / m <sup>2</sup>	> 10 kJ / m <sup>2</sup>
Hardness	75 Shore A	min. 20 Shore D
Expansion coefficient in temp. range 20-50°C	5.9 x 10 <sup>-4</sup> K <sup>-1</sup>	product conforms ± 15%
Thermal conductivity	0.2W x m <sup>-1</sup> x K <sup>-1</sup>	product conforms ± 20%
Flammability	Class II c	acc. to DIN VDE 0304, part 3
Water absorption 42 days@50°C	360 mg	max. 400 mg
Electrolytic corrosion	A1	-
Voltage test @ 23°C 80°C	> 20 kV > 10 kV	no breakdown @ test voltage > 20 kV > 20 kV
Dielectric dissipation factor @ 23°C and 50 Hz 23°C and 1k Hz	0.08 0.05	max. 0.1 -
Relative permittivity @ 23°C and 50 Hz @ 23°C and 1k Hz	5 5.1	< 6 -
Tracking resistance	KA 3c	min KA 3c
After 28 days of immersion in 90°C water		
Tensile strength	8.2N/mm <sup>2</sup>	≥ 65% of initial value
Elongation at break	60%	≥ 65% of initial value
Hardness	47 Shore	≥ 80% of initial value

# MECHANICAL TOOLS

ML

MARKETline range

MARKETline



**TECHNICAL FEATURES**

<b>Crimping Range</b>	For crimping insulated terminals, 0,25 to 6 sqmm side insertion
<b>Dimensions mm</b>	
Length	252
Width	78
Height	23
Weight g	556



**MLL1**



**TECHNICAL FEATURES**

<b>Crimping Range</b>	Single aperture, ratchet controlled tool for crimping female connectors, open barrel, flag type 1 to 2,5 sqmm - side insertion
<b>Dimensions mm</b>	
Length	252
Width	78
Height	23
Weight g	558



**MLL90**

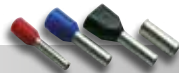


**TECHNICAL FEATURES**

<b>Crimping Range</b>	For crimping end sleeves 0,25 to 6 sqmm
<b>Dimensions mm</b>	
Length	198
Width	77
Height	18
Weight g	350



**MLS1**



**TECHNICAL FEATURES**

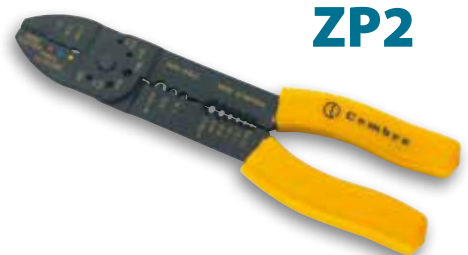
<b>Crimping Range</b>	For crimping end sleeves 6 to 16 sqmm
<b>Dimensions mm</b>	
Length	198
Width	77
Height	18
Weight g	350



**MLS2**

**TECHNICAL FEATURES**

<b>Crimping Range</b>	For crimping insulated and uninsulated connectors, 0,25 to 6 sqmm
<b>Dimensions mm</b>	
Length	234
Width	65
Height	15
Weight g	228



**ZP2**

# HB

## MECHANICAL TOOLS

MARKETline range

### TECHNICAL FEATURES

<b>Application Range</b>	Wire stripper, for PVC insulated cables 0,25 to 6 sqmm
<b>Dimensions mm</b>	
<b>Length</b>	166
<b>Width</b>	55
<b>Height</b>	15
<b>Weight g</b>	134



### HB5

### TECHNICAL FEATURES

<b>Application Range</b>	Wire stripper, for PVC insulated cables 0,2 to 6 sqmm
<b>Dimensions mm</b>	
<b>Length</b>	175
<b>Width</b>	90
<b>Height</b>	22
<b>Weight g</b>	200

MARKETline

### HB8



### TECHNICAL FEATURES

<b>Application Range</b>	A versatile tool for cutting, crimping, and stripping. Range: 0,2 to 6 sqmm
<b>Dimensions mm</b>	
<b>Length</b>	206
<b>Width</b>	106
<b>Height</b>	21
<b>Weight g</b>	256



### HB7

## CABLE TIE TOOLS

### TECHNICAL FEATURES

<b>Application Range</b>	For plastic cable ties from 2,2 to 4,8 mm
<b>Dimensions mm</b>	
<b>Length</b>	162
<b>Width</b>	133
<b>Height</b>	23
<b>Weight g</b>	208



### 5313022048

Automatic cutting

### TECHNICAL FEATURES

<b>Application Range</b>	For stainless steel cable ties width up to 7,9 mm
<b>Dimensions mm</b>	
<b>Length</b>	180
<b>Width</b>	141
<b>Height</b>	30
<b>Weight g</b>	558



### 5527030079

With cutting device

### TECHNICAL FEATURES

<b>Application Range</b>	For plastic cable ties from 4,8 to 9 mm
<b>Dimensions mm</b>	
<b>Length</b>	194
<b>Width</b>	100
<b>Height</b>	25
<b>Weight g</b>	324



### 5523036090

Manual cutting

# FLS

## TAPE RULES

FLS3 3 metres long  
FLS5 5 metres long

Robust metal case with comfortable ergonomic shape and protective mouldings for professional use. Nylon coated tape for long-life corrosion and abrasion resistance.

End hook magnet for increased user convenience. Self-locking on extension, double release button for controlled retraction.

- FLS3 Weight : 166 g – Tape width : 16 mm
  - FLS5 Weight : 252 g – Tape width : 19 mm
- Supplied in individual blister or as a display of 12 units for FLS3 and FLS5

