

TERMOGUM HEAT-SHRINKABLE PRODUCTS



Heat-shrinkable accessories are designed to insulate **the connections and rebuild insulation of cable, wires and pipes**, as well as protect construction elements exposed to wear, damage or corrosion in **power industry, heat engineering, telecommunication, electrical engineering, electronics, appliances, automotive, railways, mining, construction, aviation and shipbuilding industry**.

Termogum heat-shrinkable products have improved technical parameters. **New materials used in the technology developed by Termogum, including adhesives applied on caps, contribute to the faster shrinking of caps at lower temperatures.** Installation of the fixture has therefore become even easier and faster.

TERMOGUM Sp. z o. o. manufactures heat-shrinkable accessories with color and features adjusted to customer needs. We are currently the only company in Poland producing colored heat-shrinkable cable end caps.

We invite you to familiarize yourself with the catalog of products offered by Termogum, features of our accessories and their method of application.

HEAT-SHRINKABLE END CAPS

Each dimension of the cap is available in non-adhesive (KT), with adhesive (KTk) or with adhesive and the valve (KTkw) version.

Furthermore, it is possible to adjust the cap size to customer needs.

Standard heat-shrinkable end caps dimensions	
Type	Dimensions (diameter before shrinking /after shrinking)
<u>KTk</u>	<u>140/70</u>
<u>KTk</u>	<u>110/52</u>
<u>KTk</u>	<u>90/45</u>
<u>KTk</u>	<u>70/45</u>
<u>KTkw</u>	<u>70/45</u>
<u>KTk</u>	<u>70/25</u>
<u>KTk</u>	<u>52/25</u>
<u>KTk</u>	<u>40/15</u>
<u>KTk</u>	<u>33/15</u>
<u>KTkw</u>	<u>33/15</u>
<u>KTk</u>	<u>23/8</u>
<u>KT</u>	<u>20/12</u>
<u>KTk</u>	<u>16/8</u>
<u>KTk</u>	<u>14/4</u>
<u>KTk</u>	<u>10/4</u>

HEAT-SHRINKABLE CABLE END CAPS FEATURES

Technical data

Physical properties

	Values	Standard
Density	Do 1,10 g/cm ³	PN-ISO 2781
Tensile strength at break	minimum 12 MPa	PN-EN ISO 527
Elongation	minimum 300%	PN-EN ISO 527
Longitudinal shrinkage	+5 do 20%	WT-06/ E91*
Radial shrinkage	+40 do +60	WT-06/ E91*
Hardness	od 70 do 95 Sh A	PN-ISO 48

Thermal properties

Scope of the temperature of working	od -55 do 120°C	WT-06/ E91*
Temperature of shrinking	Higher than 120°C	WT-06/ E91*
Combustibility	combustible	
Marking of cable end tightness	tight	WT-06/ E91*

After ageing at 136oC for 168h

Tensile strength at break	Minimum 75% of face value	PN-EN ISO 527
Elongation	Minimum 90% of face value	PN-EN ISO 527

Electric properties

Dielectric resistance	15 kV/mm	PN-IEC 243
Volume resistivity	1*10 Ohm x cm	PN-88/E-04405

Chemical properties

Corrosion	non corrosive	PN-78/C-89067
Water absorption	less than 0,1%	PN-81/C-89032

METHOD OF CAPS APPLICATION

Place a cap on the end of the cable or other construction element. Then heat the cap to a temperature of 150-190°C. Manual heater or gas burner such as propane-butane are recommended as the heat source.

When the cap is tight to the element and / or the adhesive starts to flow at the edges, the heating should be ceased.

Made coating should be left to cool. Readiness to use is obtained after reaching the ambient temperature by the shrunk cap.

METHOD OF CAPS PACKAGING AND STORAGE

Heat-shrinkable caps should be stored indoors at a temperature of -5 °C to +35 °C.

Caps are packed in plastic bag:

KTk 10/4, KTk 14/4 and KTk 16/8 - 1000 items in a bag,
 KTk 23/8 - 500 items in a bag,
 KTk 33/15 and KTk 40/15 - 250 items in a bag,
 KTk 52/25 and KTk 70/25 - 100 items in a bag,
 KTk 90/45 - 50 items in a bag,
 KTk 110/52 - 30 items in a bag,
 KTk 140/70 - 15 items in a bag.

HEAT-SHRINKABLE TAPES

Each dimension of the tape is available in non-adhesive (T), with adhesive (TKT) or with adhesive and butyl substance (TKTK) version.

Furthermore, it is possible to adjust the tape size and features to customer needs.

Standard heat-shrinkable tapes dimensions	
Type	Dimensions (width/tape thickness/adhesive thickness/butyl substance thickness)
T	<u>100/05</u>
T	<u>25/05</u>
T	<u>50/05</u>
TKT	<u>100/05/03</u>
TKT	<u>150/05/03</u>
TKT	<u>25/05/03</u>
TKT	<u>50/05/03</u>
TKT	<u>100/1/03</u>
TKT	<u>150/1/03</u>
TKT	<u>200/05/03</u>
TKT	<u>50/1/03</u>
TKTK	<u>150/1/03/2</u>
TKTK	<u>220/1/03/2</u>

HEAT-SHRINKABLE TAPE FEATURES

1. Shrinkage in length		30%-40%
2. Tensile strength at break		min. 20 MPa
3. Elongation		min. 250%
4. Force of tearing electroinsulating tape with heat melt adhesive		min. 40 N/cm
5. Scope of the operating temperature		-30-70°C
6. Temperature of shrinking		150-190°C
7. Volume resistivity	in 23°C	2,1*10 ¹⁶ C [ohm*cm]
	in 90°C	1,6*10 ¹⁶ C [ohm*cm]
8. Dielectric strength		30 [kV/mm]
9. Water absorption (23°C, 24h)		max 0,1

METHOD OF TAPE APPLICATION

Wrap up heat-shrinkable tape closely around the element of a construction. Put so many layer, as you find it suitable and lap end.

Made coating heat to 150-190°C temperature. As a source of a heat we recommend using manual heater or gas burner. You can cease heating, when a tape fits tightly to the element of a construction or when adhesive starts to flow.

Leave made coating to cool. Made coating is ready when a shrunk tape is of the ambient temperature.

METHOD OF TAPES PACKAGING AND STORAGE

Heat-shrinkable caps should be stored indoors at a temperature of -5 °C to +35 °C.

Tapes are packed in rolls, on each roll tape is 30 meters long.

HEAT-SHRINKABLE TUBES

It is possible to adjust tubes size, colour and features to customer needs.

Standard dimensions of heat-shrinkable tubes (mm) (diameter before shrinking /after shrinking)
<u>2,4 / 1,2</u>
<u>3,2 / 1,6</u>
<u>4,8 / 2,4</u>
<u>6,4 / 3,2</u>
<u>12,7 / 6,4</u>

HEAT-SHRINKABLE TUBES FEATURES

1. Shrinkage in length	30%-40%
2. Tensile strength at break	min. 20 MPa
3. Elongation	min. 250%
4. Force of tearing electroinsulating tape with heat melt adhesive	min. 40 N/cm
5. Scope of the operating temperature	-30-70°C
6. Temperature of shrinking	150-190°C
7. Volume resistivity	
in 23°C	2,1*10 ¹⁶ C [ohm*cm]
in 90°C	1,6*10 ¹⁶ C [ohm*cm]
8. Dielectric strength	30 [kV/mm]
9. Water absorption (23°C, 24h)	max 0,1

METHOD OF TUBES PACKAGING AND STORAGE

Heat-shrinkable tubes should be stored indoors at a temperature of -5 °C to +35 °C.

Tubes are packed 100 pieces in a box, each tube is 1 meter long.