



Data Sheet

Triple Wall Heat Shrink Tubing Heavy Wall Crosslinked Polyolefin

Data Sheet

Description

Tiewraps.com THSTW Heat Shrink Tubing offers an outstanding balance of electrical, physical and chemical properties for a wide variety of industrial and military applications. Rated for 600V, 90°C continuous operation, all THSTW tubing is split resistant, mechanically tough, easily marked and resists cold flow.

THSTW tubing is rated for continuous operation at -55°C (-67°F) to 110°C (-67°F) and is designed to withstand elevated temperatures to 300°C (572°F) for short periods. Minimum shrink temperature for all THSTW tubing is 120°C

Agency Approvals, Self Certifications, MIL Specs

Meets requirements of:

- UL486D, CSA C22.2 No. 198.2
- ANSI C119.1
- Western Underground Guide Nos. 2.4, 2.5

Applications

- THSTW tubing is typically used as a shrink-fit electrical insulation over cable splices and terminations. It is also used for lightweight wire harness covering, wire marking, wire bundling, component packaging and fire-resistant covering.
- Withstands severe mechanical requirements of U.R.D., Submersible and direct burial installations.
- High impact abrasion, corrosion and chemical resistance.



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Heavy Wall Crosslinked Polyolefin

Typical Properties

Data is not for specifications. Values are typical and should not be considered minimum or maximum. Properties measured at room temperature 73° F (~23° C) unless otherwise stated.

Physical

Property	Typical Value US units (metric)
Tensile Strength	2100 psi
Elongation (% at break)	600%
Longitudinal change	+1% -10%
Specific Gravity	1.1
Operating Temperature	-67° to 275°F (-55° to +135°C)
Shrink Temperature (minimum)	120°C
Heat Aging (336 hrs. @ 175° C)	Elongation 500%
Heat shock (4 hrs. @ 250° C)	No dripping, flowing, cracking, passes mandrel wrap test
Low Temperature Flexibility (4 hrs @ -55° C)	No cracking
Flammability Self-extinguish, Meets UL 224 All-Tubing Flame Test (Except Clear)	Pass

Electrical

Property	Typical Value
Dielectric Strength	500 V/mil (20Kv/mm)
Volume Resistivity	10 ¹⁵ ohm-cm
Dielectric Voltage Withstand	No Breakdown, 24Kv - 1 Min 15Kv - 4 Hrs

Chemical

Property	Typical Value
Corrosive Resistance	Non-corrosive
Solvent Resistance	Excellent
Water Absorption	0.2%
Fungus Resistance	Non-nutrient

Chemical

Property	Typical Value
Adhesive Softening Point	92° C +/- 5° C
Adhesive Peel Strength (300mm/min at 23° C) - to Steel, Alum, P.E. - to PVC	35 pli 20 pli
Adhesive Lap Sheer (1in/mm at 23° C)	125PSI (0.875 MPa)
Adhesive Blocking (30° C)	No blocking
Water Penetration	No penetration after 236hrs. (min) of continuous immersion.



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Triple Wall Heat Shrink Tubing Flexible Polyolefin

Standard Sizes and Dimensions

Part Number	Ordering Size	Expanded I.D. (Minimum)		Recovered I.D. (Maximum)		Recovered Wall Thickness (Nominal)	
		in.	(mm)	in.	(mm)	in.	(mm)
THSTW-12	1/2	0.51	(13.0)	0.16	(4.1)	0.09	(2.4)
THSTW-34	3/4	0.75	(19.1)	0.24	(6.1)	0.09	(2.4)
THSTW-10	1.1"	1.10	(27.9)	0.35	(8.9)	0.12	(3.0)

Shrink Ratio

Tiewraps.com Heat Shrink Tubing THSTW has a 3:1 shrink ratio. When freely recovered, the tubing will shrink to its as-supplied internal diameter. The recovered wall thickness is proportional to the degree of recovery.

Shelf Life & Storage

This product has a 10-year shelf life from date of manufacture when stored in a humidity controlled storage (50°F/10°C to 80°F/27°C and <75% relative humidity).

Availability

Standard Packaging:

4 Foot Sticks

Standard Colors:

THSTW tubing, Class 1 (flame retardant) – Black - Red

*Other colors available are subject to factory quotation.

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