

## Thermo-Shrink® Heavy-Wall Heat Shrinkable Tubing

- TS-46 irradiated cross-linked polyolefin with 3:1 standard shrink ratio
- Adhesive liner provides complete insulation and protection to electrical splices in above-grade, underground or underwater applications
- Maximum flame retardancy
- Meets UL 486D, CSA C22.2 No. 198.2, ANSI C119.1, Western Underground Guides Nos. 2.4, 2.5, MIL-DTL-23053/15, IEEE 383 Vertical Flame Test, ANSI C37.20.2, ICEA S-19-8 and NEMA insulation thickness requirements
- Continuous operating temperature from -55°C to 110°C
- Rated for 600V, 90°C continuous use
- Shrink temperature of 120°C



Model	Expanded I.D. (Min.) (In.)	Recovered I.D. (Max.) (In.)	Nominal Recovered Wall Thickness (In.)	Cable Range*	Length (In.)	Cat. No.
TS-46-400	.400	.150	.060	12-6 AWG	6	<b>46-343</b>
					9	<b>46-344</b>
					48	<b>46-346</b>
TS-46-750	.750	.240	.090	8-1/0 AWG	6	<b>46-347</b>
					9	<b>46-348</b>
					48	<b>46-350</b>
TS-46-1100	1.100	.350	.120	2-4/0 AWG	6	<b>46-351</b>
					9	<b>46-352</b>
					48	<b>46-354</b>
TS-46-1500	1.500	.470	.160	3/0 AWG-400 KCMIL	9	<b>46-356</b>
					12	<b>46-357</b>
					48	<b>46-358</b>
TS-46-2000	2.000	.630	.160	250-750 KCMIL	9	<b>46-369</b>
					18	<b>46-371</b>
					48	<b>46-372</b>

\*Reference only. Consult the wire manufacturer's catalog for specific O.D. of wire and insulation.

Properties	Heavy Wall
Shrink Temperatures	120°C to 250°C (200°C recommended)
Continuous Operating Temperature	-55°C to 110°C
Tensile Strength (PSI)	2,100 PSI min.
Ultimate Elongation	600% min.
Secant Modulus @ 2% Strain	25,000 PSI max.
Specific Gravity	1.20 max.
Heat Aging, 168 hrs. @ 175°C Tensile Strength Elongation	500%
Heat Shock, 4 hrs. @ 225°C	No cracks, flowing or dripping
Flammability	Self-extinguishing
Low Temperature Brittle Point	-55°C
Volume Resistivity	10 <sup>13</sup> ohm-cm min.
Dielectric Strength	500V/mil (20kV/min.)
Corrosive Effect	Non-corrosive
Solvent Resistance 24 hrs. Immersion per MIL-DTL-23053	Good to excellent
Water Absorption	0.5%
Fungus Resistance	No growth
Longitudinal Change, 3 min.	+1%/-10%

All values are typical performance data and are not to be used as design data.



## Thermo-Shrink® Medium-Wall Heat Shrinkable End Caps

- Creates a watertight seal to protect the ends of power and control cords
- Effectively offers protection against oxidation, ozone, UV radiation, etc.
- Coated with hot melt adhesive to ensure environment seal
- Fits easily over end of cable
- Protect power cables up to 1000V and telecommunication cable
- Recommended for both open air and underground power distribution cables with PVC, lead or XLPE sheaths
- Thermally stabilized cross-linked polyolefin, coated with specially designed hot melt adhesive



Technical Data		
Property	Test Method	Typical Data
Operating Temperature	IEC 216	-55°C to +110°C
Tensile Strength	ASTM D 638	>14 MPa
Elongation at break	ASTM D 638	>400%
Density	ASTM D 792	1.05g/cm <sup>3</sup>
Elongation of break after aging	150°C, 168 hrs.	>300%
Dielectric Strength	IEC 243	>15KV/mm
Volume Resistance	IEC 93	10 <sup>14</sup> Ω.cm

Expanded I.D. (Min.)	Recovered I.D. (Max.)	Recovered Wall Thickness +/-10%	Cable Dia. Range*	Length (In.)	Cat. No.
0.55"/14mm	0.18"/4.5mm	0.079"/2.0mm	0.20"/5mm - 0.47"/12mm	1.77/45mm	<b>46-381</b>
0.98"/25mm	0.31"/8mm	0.091"/2.3mm	0.39"/10mm - 0.71"/18mm	2.76/70mm	<b>46-382</b>
1.38"/35mm	0.59"/15mm	0.118"/3.0mm	0.67"/17mm - 1.18"/30mm	3.35/85mm	<b>46-383</b>
2.95"/75mm	1.38"/35mm	0.138"/3.5mm	1.77"/45mm - 2.76"/70mm	5.12/130mm	<b>46-384</b>
4.72"/120mm	2.36"/60mm	0.157"/4.0mm	2.95"/75mm - 4.33"/110mm	6.10/155mm	<b>46-387</b>

\*Consult the wire manufacturer's catalog for specific O.D. of wire and insulation.