



HST Heat Shrink Tubing Flexible, Polyolefin

Description

DX Electric HST Heat Shrink Tubing offers an outstanding balance of electrical, physical and chemical properties for a wide variety of industrial and military applications. Rated for 135°C continuous operation, all HST tubing is split resistant, mechanically tough, easily marked and resists cold flow. HST tubing is rated for continuous operation at -55°C (-67°F) to 135°C (275°F), and is designed to withstand elevated temperatures to 300°C (572°F) for short periods. Minimum shrink temperature for all HST tubing is 100°C (212°F).

Agency Approvals & Self Certifications

Meets requirements of:

- SAE-AMS-DTL-23053/5, Class 1, Class 2 (Clear)*
- AMS-3636, AMS-3637
- UL Recognized at 600 volts maximum @ 125°C
- CSA Certified, CSA LR38227, at 600 volts maximum @ 125°C
- ABS
- RoHS Compliant

*Formerly MIL-I-23053/5 and MIL-DTL-23053/5

Applications

HST 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.

Shrink Ratio

HST tubing has a 2:1 shrink ratio. When freely recovered, the tubing will shrink to 50% of its as-supplied internal diameter. The recovered wall thickness is proportional to the degree of recovery.

Standard Sizes and Dimensions

Ordering Size (Nominal)	Expanded I.D. (Minimum)		Recovered I.D. (Maximum)		Recovered Wall Thickness (Nominal)	
	In.	mm	In.	mm	In.	mm
3/64	0.046	1.17	0.023	0.58	0.016	0.41
1/16	0.063	1.60	0.031	0.79	0.017	0.43
3/32	0.093	2.36	0.046	1.17	0.020	0.51
1/8	0.125	3.18	0.062	1.57	0.020	0.51
3/16	0.187	4.75	0.093	2.36	0.020	0.51
1/4	0.250	6.35	0.125	3.18	0.025	0.64
3/8	0.375	9.53	0.187	4.75	0.025	0.64
1/2	0.500	12.70	0.250	6.35	0.025	0.64
3/4	0.750	19.05	0.375	9.53	0.030	0.76
1	1.000	25.40	0.500	12.70	0.035	0.89
1-1/2	1.500	38.10	0.750	19.05	0.040	1.02
2	2.000	50.80	1.000	25.40	0.045	1.14
3	3.000	76.20	1.500	38.10	0.050	1.27
4	4.000	101.60	2.000	50.80	0.055	1.40



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Typical Properties

Not for specifications. Values are typical, not to 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	2400 psi
Ultimate Elongation	400%
Longitudinal Change	±5%
Secant Modulus (2%)	13,000 psi
Specific Gravity	1.3 (Opaque) .93 (Clear)
Operating Temperature	-67° to 275°F (-55° to 135°C)
Shrink Temperature (minimum)	212°F (100°C)
Heat Aging (336 hrs. @ 175°C)	Elongation 175%
Heat Shock (4 hrs. @ 250°C)	No dripping, flowing, cracking, passes mandrel wrap test
Low Temperature Flexibility (4 hrs. @ -55°C)	No Cracking
Scant Modules (2%)	13,000 psi
Flammability Self-extinguish, Meets UL 224 All-Tubing Flame Test (Except Clear)	Pass

Electrical Property (Test Method)	Typical Value
Dielectric Strength	900 V/mil
Volume Resistivity	10 ¹⁵ ohm/cm

Chemical Property (Test Method)	Typical Value
Corrosion Resistance (Copper mirror)	Non-corrosive
Fungus Resistance	Non-nutrient
Water Absorption	0.20%
Solvent Resistance	Excellent

Standard Color: Black

Colors available by request: Clear, Red, Blue, White, Yellow, Orange, Green
Other colors available by special request

Standard Length: 4 ft. sticks

Spools available on some sizes