

ASTRATITE® TYPE AVF TUBING

85°C SHRINK TEMPERATURE

Class 125°C • Very Flexible Polyolefin Tubing

UL Recognized Component: Class 125°C, VW-1 File No. E31622

MIL-I-23053/5, Class 3, Canadian Standards Association, File No. 37065



DESCRIPTION

ASTRATITE Type AVF cross-linked polyolefin tubing is an exceptionally flexible, highly flame retarded tubing with an exceptionally low recovery temperature. It will fully recover in approximately five minutes depending on oven conditions and item being covered. Type II tubing, clear, requires 110°C for full recovery. This low shrink temperature reduces energy costs, reduces cycle time, improves productivity and reduces the danger of damage to heat sensitive parts. During the shrinkage operation, this tubing will encapsulate any device previously inserted inside it, and will assume the contour of that device. It is useful for skin-tight covering of splices, resistors, diodes, mechanical parts, terminations, etc. AVF tubing is superior to other heat shrinkable polyolefin tubings in that it passes the very stringent flammability test of ASTM D876. Type II tubing is the corresponding very flexible, clear product which is flammable. Both Type I and Type II tubings are formulated for long-term heat and corrosion resistance. Type I tubing is also formulated for superior performance in flame resistance, low temperature flexibility and chemical resistance. Continuous operation range is -55°C to +125°C. Type I tubing conforms to SAE Aerospace Material Specification AMS 3587. Type II tubing conforms to Aerospace Material Specification AMS 3588.



DIMENSIONS

Size	Minimum Expanded I.D.		Maximum Recovered I.D.		Nominal Recovered Wall	
	Inch	(mm)	Inch	(mm)	Inch	(mm)
3/64	.046	(1.17)	.023	(0.58)	.016	(0.41)
1/16	.063	(1.60)	.031	(0.79)	.017	(0.43)
3/32	.093	(2.36)	.046	(1.17)	.020	(0.51)
1/8	.125	(3.18)	.062	(1.60)	.020	(0.51)
3/16	.187	(4.75)	.093	(2.36)	.020	(0.51)
1/4	.250	(6.35)	.125	(3.18)	.025	(0.64)
3/8	.375	(9.52)	.187	(4.75)	.025	(0.64)
1/2	.500	(12.70)	.250	(6.35)	.025	(0.64)
3/4	.750	(19.05)	.375	(9.52)	.030	(0.76)
1	1.000	(25.40)	.500	(12.70)	.035	(0.89)
1 1/2	1.500	(38.10)	.750	(19.05)	.040	(1.02)
2	2.000	(50.80)	1.000	(25.40)	.045	(1.14)

STANDARD COLORS

Type I — 3/64" - 1/16" Black
 3/32" - 1" Black, white, red
 1/8" - 2" Black

Type II — Clear

Other sizes and colors available on special order subject to factory acceptance.

PERFORMANCE CHARACTERISTICS

Property	Specification	Typical Value
Tensile Strength	ASTM D2671	2686 psi
% Elongation	ASTM D2671	398%
Dielectric Withstand	2500V / Min.	Pass
Dielectric Strength	500V / mil	800 V/mil
Flexibility		
Heat Shock	4 hr. 225°C	No cracking
Heat Resistance	168 hr. / 175°C	480% elongation
Low Temperature	4 hr. -55°C	No cracking
Copper Mirror Corrosion	16 hr. / 150°C	No corrosion
Copper Stability	168 hr. / 150°C	490% elongation
Color Stability	48 hr. / 175°C	MIL-STD-104
Flammability (Type I only)	ASTM D876	Self-extinguishing
Volume Resistivity	ASTM D2671	4x10 ¹⁶ ohm-cm
Longitudinal Change	200°C / 3 min.	-5% Typ. -10% Max.
Secant Modulus	UL 224	10,000 psi
Water Absorption	ASTM D570	0.2%
Solvent Resistance	24 hrs. / 25°C JP 4 Skydrol 500 Av Gas Hyd. Fluid Water	1700 psi 850 V/mil
Specific Gravity		
— Type I	ASTM D792	1.32
— Type II		0.96

PACKAGING

4 Foot Cut Lengths.
 Spools of continuous lengths.
 Cut to customer specifications.