

# SUMITUBE® A2 (3X)

## FLEXIBLE POLYOLEFIN THIN WALL 3 : 1 Shrink Ratio



RoHS Compliant



Lead-Free



Halogen-Free

### TYPICAL FEATURES

- 1) SUMITUBE A2(3X) is a very flexible, clear, heat-shrinkable polyolefin tubing. A2(3X) is overexpanded to have a recovery ratio of 3 to 1, as opposed to the normal 2 to 1 recovery.
- 2) A2(3X) has a recovery temperature of 110°C.
- 3) A2(3X) meets the material and functional requirements of AMS-DTL-23053/5C, with exception to dimensions and longitudinal change.
- 3) A2(3X) has an operating temperature range of -55°C to +135°C with up to 200°C for short duration.
- 4) A2(3X) is recommended for use in general purpose applications for protection of components in light wire harness assemblies. It can be used where oversized sub-components prevent the use of a standard heat shrinkable tubing. It can also provide the user with better economies, as one size tubing can often replace 2 standard 2:1 expanded tubing sizes, thereby reducing inventories.

### STANDARD SIZES

NOMINAL SIZE (MM)	INSIDE DIAMETER		INSIDE DIAMETER		WALL THICKNESS	
	AS SUPPLIED (MIN)		AFTER RECOVERY (MAX)		AFTER RECOVERY (NOM)	
	INCH	(MM)	INCH	(MM)	INCH	(MM)
1.5/0.5	.060	1.5	.020	0.5	.020	.50
3/1	.120	3.0	.040	1.0	.024	.60
6/2	.240	6.0	.080	2.0	.028	.70
9/3	.360	9.0	.120	3.0	.031	.80
12/4	.480	12.0	.160	4.0	.033	.85
18/6	.720	18.0	.240	6.0	.039	1.0
24/8	.945	24.0	.315	8.0	.048	1.2
40/13	1.575	40.0	.515	13.0	.050	1.25
50/17	1.968	50.0	.680	17.0	.059	1.50
75/25	2.953	75.0	.984	25.0	.065	1.65

**Standard Colors:** Clear

**Standard Package:** Spooled (S) (continuous lengths)

**How to Order:** (Type of material) (Size) (Color) (Packaging)

**Example:** A2(3X) 6/2 Clear S

## A2 (3X) SPECIFICATION VALUES

PROPERTY (UNITS)	TEST METHOD	REQUIREMENT
<b>Physical:</b> Tensile strength (psi) Elongation (%) Specific gravity Low temperature flex (-55°C) Heat shock Heat resistance (175°C, 168 hrs.) Elongation (%) Secant modulus (psi) Longitudinal change (%)	ASTM D638 ASTM D638 ASTM D792 AMS-DTL-23053 AMS-DTL-23053  ASTM D638 ASTM D882 AMS-DTL-23053	1500 min. 200 min. 1.35 max. no cracking no cracking  100 min. 2.5 x 10 <sup>4</sup> max. +5, -15
<b>Electrical:</b> Dielectric strength (volts/mil) Volume resistivity (ohm-cm)	ASTM D876 ASTM D876	500 min. 1.0 X 10 <sup>14</sup> min.
<b>Chemical:</b> Corrosion Water absorption (%) Fluid resistance (23°C, 24 hrs.) Tensile strength (psi)  Shrink temperature, nominal	AMS-DTL-23053 ASTM D 570  AMS-DTL-23053	no corrosion 0.5 max.  1000 min.  110°C

Specification reference: AMS-DTL-23053/5C, Class 2, except dimensions and longitudinal change



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