

# SUMITUBE® SA3

## DUAL WALL AUTOMOTIVE SPLICE TUBING, FLAME RETARDED POLYOLEFIN 4 : 1 Shrink Ratio



RoHS/RoHS2 Compliant

### TYPICAL FEATURES

- 1) SUMITUBE SA3 is a dual wall, adhesive lined tubing. Upon application of heat, the adhesive liner melts and flows, encapsulating and sealing components contained within.
- 2) The outer jacket of SUMITUBE SA3 is highly flame retarded.
- 3) The 4:1 shrink ratio allows a few sizes to cover a wide range of component and splice diameters.
- 3) SUMITUBE SA3 has a shrink temperature of 130° C.
- 4) Operating temperature range is -40° C to + 130° C.
- 5) SUMITUBE SA3 is recommended for automotive applications requiring environmental sealing, fluid and temperature resistance and outstanding electrical properties.

### STANDARD SIZES

SIZE	INSIDE DIAMETER AS SUPPLIED (MIN.)		INSIDE DIAMETER AFTER RECOVERY (MAX.)		TOTAL WALL THICKNESS AFTER RECOVERY (MIN.)		ADHESIVE THICKNESS (NOM.)	
	INCH	(MM)	INCH	(MM)	INCH	(MM)	INCH	(MM)
1	0.228	5.80	0.050	1.26	0.047	1.20	0.022	0.56
2	0.295	7.50	0.065	1.64	0.060	1.52	0.030	0.76
3	0.429	10.9	0.094	2.40	0.075	1.91	0.040	1.02
4	0.701	17.8	0.175	4.45	0.095	2.41	0.054	1.37
<b>Standard Color:</b> Black <b>Standard Package:</b> Cut pieces, 27mm, 50mm, 65mm, or 1220mm (4 foot lengths) <b>How to Order:</b> (Type of material) (Size) (Color) (Cut length) <b>Example:</b> SA3 -2 Black 50 mm								

# SA3 SPECIFICATION VALUES

PROPERTY (UNITS)	TEST METHOD	REQUIREMENTS
<b>Material:</b> Tensile strength (psi)* Elongation (%) Heat shock (225° C, 4 hrs.)  Secant modulus @ 2% (psi)* Dynamic cut through (N) Longitudinal change (%) Volume resistivity (ohm-cm) Flammability Shrink temperature, ° C, complete recovery  * Calculated based on wall thickness of jacket only	ASTM D2671 ASTM D2671 ASTM D2671  ASTM D2671 ASTM D3032 ASTM D2671 ASTM D2671 SAE J-1128 -----	1500 min. 300 min. no cracking, dripping, or flowing of outer jacket 2.2 X 10 <sup>4</sup> min. 150 min. 0 to -10 1 X 10 <sup>12</sup> min. Pass 130
<b>Splice performance:</b> Current leakage, microamps, initial Current leakage, microamps, after: Thermal humidity cycling Thermal aging Thermal shock  Fluid compatibility: IRM 903 oil Power steering fluid Automatic transmission fluid Engine coolant Gunk® Brand degreaser or equivalent No. 2 diesel fuel Windshield wiper solvent ASTM Reference Fuel 'C' SAE J 1703 brake fluid  Low temperature flexibility Dielectric withstand test	XLPE wire splices <sup>1</sup>  5 cycles / -40° to +105° C 168 hrs. / 135° C +125° C to -5°C, 5 cycles  100° C / 1 hr. 100° C / 1 hr. 100° C / 1 hr. 100° C / 1 hr. 23° C / 1 hr. 23° C / 1 hr. 23° C / 1 hr. 23° C / 1 hr. 23° C / 1 hr. 23° C / 1 hr. -30° C / 3 hrs. 1000 volts (RMS)	0.25 max.  0.25 max. 0.25 max. 0.25 max.  0.25 max. 0.25 max. 0.25 max. 0.25 max. 0.25 max. 0.25 max. 0.25 max. 0.25 max. 0.25 max. 0.25 max. 60 seconds min.

<sup>1</sup> Various XLPE ultrasonically welded wire splices. Assorted representative AWG sizes and configurations. Testing per Ford ES-FOEB-1A263-AA & Chrysler PF-10999. Contact SEIP for details.



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