

## FLEXIBLE ELASTOMERIC POLYOLEFIN 2 : 1 Shrink Ratio

### MILITARY SPECIFICATION

#### TYPICAL FEATURES

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| <p>1) SUMITUBE R120 is a heat-shrinkable flame retarded elastomer tubing specifically formulated for long term resistance to fluids, heat and mechanical abuse.</p> <p>2) SUMITUBE R120 offers superior protection against aviation and diesel fuels, hydraulic fluids, greases and lubricants.</p> <p>3) SUMITUBE R120 meets the material and functional requirements of AMS-DTL-23053/16B.</p> | <p>4) Shrink temperature is 130° C.</p> <p>5) Operating temperature range is -75° C to +120° C.</p> <p>6) SUMITUBE R120 is recommended for protecting cables and wire harnesses on military ground vehicles. It is ideal for a variety of applications requiring ruggedness and fluid resistance.</p> |
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#### STANDARD SIZES

SIZE	INSIDE DIAMETER AS SUPPLIED (MIN)		INSIDE DIAMETER AFTER RECOVERY (MAX)		WALL THICKNESS AFTER RECOVERY (NOM)	
	INCH	(MM)	INCH	(MM)	INCH	(MM)
1/8*	.125	3.2	.062	1.6	.028	0.70
3/16*	.187	4.8	.093	2.4	.031	0.80
1/4	.250	6.4	.125	3.2	.035	0.90
3/8	.375	9.5	.187	4.8	.039	1.00
1/2	.500	12.7	.250	6.4	.047	1.20
5/8*	.625	15.9	.313	7.9	.052	1.32
3/4	.750	19.1	.375	9.5	.059	1.50
7/8*	.875	22.2	.438	11.1	.065	1.65
1	1.000	25.4	.500	12.7	.071	1.80
1 1/4*	1.250	31.8	.625	15.9	.087	2.20
1 1/2	1.500	38.1	.750	19.1	.094	2.40
1 3/4 *	1.750	44.5	.875	22.2	.095	2.40
2	2.000	50.8	1.000	25.4	.110	2.80

**Standard Colors:** Black  
**Standard Package:** Spooled (S)  
**How to Order:** (Type of material) (Size) (Color) (Packaging)  
**Example:** R120 1/2 Black S

\* Non MIL-Spec sizes

# R120 Specification Values

PROPERTY (UNITS)	TEST METHOD	REQUIREMENT
<b>Physical:</b> Tensile strength (psi) Elongation (%) Specific gravity Low temperature flex (-65°C) Heat shock(200° C, 4 hrs) Heat resistance (150°C, 168 hrs.) Tensile stress (psi) Elongation (%) Tensile stress @ 100% elongation (psi) Longitudinal change (%)	ASTM D638 ASTM D638 ASTM D792 AMS-DTL-23053 AMS-DTL-23053  ASTM D638 ASTM D638 ASTM D412 AMS-DTL-23053	1700 min. 250 min. 1.5 max. Pass Pass  1500 min. 200 min. 1500 max. ±10
<b>Electrical:</b> Dielectric strength (volts/mil) Volume resistivity (ohm-cm)	ASTM D876 ASTM D876	300 min. 1.0 X 10 <sup>10</sup> min.
<b>Chemical:</b> Corrosion, copper contact (121°C, 16 hrs.) copper mirror (135°C, 16 hrs.) Water absorption (%) Fluid resistance (23°C, 24 hrs.) Tensile strength (psi) Flammability Shrink temperature, nominal	AMS-DTL-23053 AMS-DTL-23053 ASTM D570  AMS-DTL-23053 AMS-DTL-23053	no corrosion no corrosion 2.0 max.  1500 min. Pass 130° C

Specification reference: AMS-DTL-23053/16B



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