

HIGH TEMPERATURE FLUROELASTOMER HEAT – SHRINKABLE MARKER SLEEVE FOR USE WITH SUMIMARK I & II MARKING SYSTEMS 2 : 1 Shrink Ratio

MILITARY SPECIFICATION



RoHS/RoHS2 Compliant

TYPICAL FEATURES

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| <p>1) SUMIMARK SM60 is a highly fluid resistant, flame retarded fluoroelastomer heat-shrinkable marker sleeve tubing that meets all of the material and functional requirements of military specification AMS-DTL-23053/13.</p> <p>2) SUMIMARK SM60 tubing, when used in conjunction with the SUMIMARK marking machine, provides marked sleeves that meet or exceed the print adherence requirements of SAE-AS5942. <i>SM60 tubing is not compatible with Sumimark III and IV marking systems. For these systems, it is necessary to use SM3-60 tubing.</i></p> <p>3) Shrink temperature is 120° C, far lower than other fluoroelastomer shrink tubing available.</p> | <p>4) Sumimark SM60 meets the stringent outgassing requirements of NASA SP-0022A.</p> <p>5) Operating temperature range is -40° C to +200° C and up to 300° C for short periods.</p> <p>6) SUMIMARK SM60 is recommended for applications where resistance to aggressive solvents and high temperatures is required. SM60 is ideally suited for high temperature wire and cable markers and identification in applications such as aircraft engine environments.</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)	.031	(0.80)
3/16	.187	(4.8)	.093	(2.4)	.035	(0.90)
1/4	.250	(6.4)	.125	(3.2)	.035	(0.90)
3/8	.375	(9.5)	.187	(4.8)	.035	(0.90)
1/2	.500	(12.7)	.250	(6.4)	.035	(0.90)
5/8	.625	(15.9)	.312	(7.9)	.042	(1.10)
3/4	.750	(19.1)	.375	(9.5)	.042	(1.10)
7/8	.875	(22.2)	.437	(11.1)	.049	(1.20)
1	1.000	(25.4)	.500	(12.7)	.049	(1.20)
1¼	1.250	(31.8)	.625	(15.9)	.055	(1.40)
1½	1.500	(38.1)	.750	(19.1)	.055	(1.40)

Standard Colors: White & black (other colors available upon request)

Standard Package: Spooled (S)

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

Example: SM60 1/4 Black S

SM60 SPECIFICATION VALUES

PROPERTY (UNITS)	TEST METHOD	REQUIREMENT
Physical: Tensile strength (psi) Elongation (%) Tensile Stress @ 200% elongation (psi) Low temperature flex. (-40° C) Heat shock (300° C, 4 hrs.) Heat resistance (250° C, 168 hrs.) Elongation (%) Tensile strength (psi) Longitudinal change (%)	ASTM D638 ASTM D638 ASTM D412 AMS-DTL-23053 AMS-DTL-23053 ASTM D638 ASTM D638 AMS-DTL-23053	1200 min. 250 min. 2000 max. no cracking no cracking 200 min. 1200 min. -20 max.
Electrical: Dielectric strength (volts/mil) Volume resistivity (ohm-cm)	ASTM D876 ASTM D876	200 min. 1.0 X 10 ¹¹ min.
Print Adherence: Abrasion Fluid resistance Isopropyl Alcohol/Mineral Spirits Blend Terpene Defluxer H ₂ O / PGME / Monoethanolamine	SAE-AS5942 MIL-STD-202 Method 215J	20 rubs 10 rubs (x3) 10 rubs (x3) 10 rubs (x3)
Chemical: Copper mirror corrosion (175° C, 16 hrs.) Water absorption (%) Fluid resistance (23° C, 24 hrs.) Tensile strength (psi) Elongation (%) Flammability Shrink temperature, nominal Vacuum Outgassing TML, % CVCM, %	AMS-DTL-23053 ASTM D570 AMS-DTL-23053 AMS-DTL-23053 AMS-DTL-23053 ASTM-E-595 ASTM-E-595	no corrosion 0.5 max. 1200 min. 250 min. 15 sec. max. 120° C 1.0 max. 0.1 max.

Specification reference: SAE-AS5942 (Replaces cancelled specification SAE-AS81531)
 AMS-DTL-23053/13
 NASA SP-R-0022A



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