



SM3-31 2:1 Shrink Ratio Flexible Fluoropolymer



Specifications:

SAE AMS-DTL-23053/18 Class 3

Recommended Printer & Ribbon:

SumiMark® Marking System Models III & IV
Ribbon SumiMark® SM3

Print Performance:

Adherence: SAE-AS5942
MIL-STD-202G, Method 215J
Store in original packaging

Product Overview:

SumiMark® SM3-31 heat shrink tubing is a markable product, manufactured to the highest quality standards. SumiMark® SM3-31 tubing meets material requirements of SAE AMS-DTL-23053/18 Class 3. This product also meets print adherence requirements of SAE-AS5942, when used in conjunction with SumiMark® Marking Systems and SumiMark® ribbons.

Applications:

- Wire identification
- Wire protection
- Fluid resistance
- Strain relief
- Abrasion protection
- High temperature

Product Features:

- Very flexible, highly flame retarded fluoropolymer
- 2:1 Shrink Ratio
- Operating temperature range -55°C to $+150^{\circ}\text{C}$
- Continuous format for cut-to-length requirements and cost savings
- RoHS/RoHS2 compliant
- Colors—White



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SM3-31

2:1 Shrink Ratio

Flexible Fluoropolymer

Technical Specifications:

Property	Test Method	Requirement
Tensile strength (psi)	ASTM D 638	1500 min.
Elongation (%)	ASTM D 638	200 min.
Specific Gravity	ASTM D 792	2.0 max.
Low Temperature Flex (-55° C)	AMS-DTL-23053	no cracking
Heat shock (250° C, 4 hrs.)	AMS-DTL-23053	no cracking
Heat Resistance (175° C, 168 hrs)		
Elongation %	ASTM D 638	100 min.
Longitudinal change	AMS-DTL-23053	+/- 10
Secant modulus(psi)	ASTM D 882	2.5 X 10 ⁴ max.
Electrical:		
Dielectric strength (volts/mil)	ASTM D 876	400 min.
Volume resistivity (ohm-cm)	ASTM D 876	1.0 X 10 ¹¹ min.
Chemical:		
Copper Stability (180° C, 168 hrs)		
Elongation (%)	UL224	70% of unaged value min.
Water absorption (%)	ASTM D 570	0.5 max.
Fluid resistance (23° C, 24 hrs.)		
Tensile strength (psi)	AMS-DTL-23053	1000 min.
Flammability	UL 224 VW-1	Pass
Shrink temperature, nominal		130° C
Specification references:		
AMS-DTL-23053/18 Class 3		
SAE AS5942		

Standard Sizes:

Size	ID Min (As Supplied)		ID Max (After Recovery)		Wall Thickness Nom (After Recovery)	
	Inch	MM	Inch	MM	Inch	MM
1/8	.125	3.2	.062	1.6	.010	0.31
3/16	.187	4.8	.093	2.4	.010	0.31
1/4	.250	6.4	.125	3.2	.012	0.36
3/8	.375	9.5	.187	4.8	.012	0.36
1/2	.500	12.7	.250	6.4	.012	0.36
3/4	.750	19.1	.375	9.5	.017	0.43
1	1.00	25.4	.500	12.7	.019	0.48

Standard Colors: White

Standard Package: Spooled

How to Order: Type of Material Size Color Packaging

Example: SM3-31 1/4 White Spooled