

**FLEXIBLE POLYOLEFIN  
LOW TEMPERATURE RECOVERY  
2 : 1 Shrink Ratio  
PBDE - Free**

**UL/CSA RECOGNIZED 125°C AND 600V(VW-1)**



**RoHS Compliant**

**TYPICAL FEATURES**

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| <p>1) Sumitube F5(Z) is a very flexible, very low recovery temperature, heat-shrinkable polyolefin tubing that is highly flame retarded. F5(Z) is recognized by Underwriters Laboratories (UL) under Subject 224 with a VW-1 and 125° C rating.</p> <p>2) The very low recovery temperature of 80° C benefits the user with rapid installation times, as well as a less potential damage to low temperature rating insulation systems and heat sensitive components.</p> | <p>3) Shrink temperature is 80° C.</p> <p>4) Operating temperature range is -55° C to +125° C.</p> <p>5) Sumitube F5(Z) is recommended for all general purpose commercial applications. Examples include insulation, color coding, bundling, and light harness jacketing or environmental protection where low shrink temperature is important to the user.</p> <p>6) Sumitube F5(Z) is a direct replacement for Sumitube F5.</p> |
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**STANDARD SIZES**

NOMINAL SIZE	INSIDE DIAMETER AS SUPPLIED (MIN)		INSIDE DIAMETER AFTER RECOVERY (MAX)		WALL THICKNESS AFTER RECOVERY (NOM)	
	INCH	(MM)	INCH	(MM)	INCH	(MM)
3/64	.046	1.2	.023	0.6	.016	0.40
1/16	.063	1.6	.031	0.8	.017	0.43
3/32	.093	2.4	.046	1.2	.020	0.51
1/8	.125	3.2	.062	1.6	.020	0.51
3/16	.187	4.8	.093	2.4	.020	0.51
1/4	.250	6.4	.125	3.2	.025	0.64
3/8	.375	9.5	.187	4.8	.025	0.64
1/2	.500	12.7	.250	6.4	.025	0.64
3/4	.750	19.1	.375	9.5	.030	0.76
1	1.000	25.4	.500	12.7	.035	0.89
1 1/2	1.500	38.1	.750	19.1	.040	1.02
2	2.000	50.8	1.000	25.4	.045	1.14

**Standard Colors:** Black, White, Red, Yellow, Blue (Other colors subject to factory acceptance and quote).

**Standard Package:** Spooled (S) or 4 feet (4')

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

**Example:** F5 (Z) 1/4 Black S

# F5(Z) SPECIFICATION VALUES

PROPERTY (UNITS)	TEST METHOD	REQUIREMENT
<b>Physical:</b> Tensile strength (psi) Elongation (%) Specific gravity Low temperature flex (-55° C) Heat resistance (158° C, 168 hrs.) Elongation (%) Secant modulus (psi) Deformation (125° C, 1 hr.) (%) Longitudinal change (%)	UL 224 UL 224 ASTM D792 AMS-DTL-23053  UL224 ASTM D882 UL 224 AMS-DTL-23053	1500 min. 200 min. 1.35 max. No cracking  100 min. 25000 max. 50 max. ± 5
<b>Electrical:</b> Dielectric strength (volts/mil) Volume resistivity (ohm-cm)	UL 224 UL 224	2500 min. 1.0 X 10 <sup>14</sup> min.
<b>Chemical:</b> <b>Corrosion</b> Copper stability (158° C, 168 hrs.) Elongation (%) Water absorption (%) Flammability Shrink temperature, nominal	UL 224  UL 224 ASTM D570 UL 224 VW-1 ---	no corrosion  100 min. 0.5 max. Pass 80° C

**Specification reference:** UL 224, 125° C, 600V, VW-1  
 File E48762 YDPU2, Cat. No. SUMITUBE F5(Z)  
 CSA-C22.2 No. 198-M1999 125° C, 600V  
 File LR33298

Marking: SUMTIUBE F5(Z) is surface printed with recognized UL and CSA marking.



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Rev. 7/6/05