

# SUMITUBE® F4(Z)

UL & CSA

**FLEXIBLE POLYOLEFIN THIN WALL  
2 : 1 Shrink Ratio  
PBDE - Free**

**UL RECOGNIZED 125° C 300V (VW-1)**



**RoHS Compliant**

<b>TYPICAL FEATURES</b>	
<p>1) Sumitube F4(Z) is a very flexible, thin wall, flame retarded, heat-shrinkable polyolefin tubing that is recognized by Underwriters' Laboratories (UL) Subject 224 as a VW-1 rated material.</p> <p>2) Low temperature recovery benefits the user in more rapid installation, with less potential for damage to component insulation systems. Thin recovered walls save space and weight.</p> <p>3) Shrink temperature is 90° C.</p>	<p>4) Operating temperature range is -55° C to +125° C.</p> <p>5) Sumitube F4(Z) is recommended for all general purpose applications for flame retardant tubing such as insulating, color coding, bundling or environmental protection, especially when space or weight is at a premium.</p> <p>6) Sumitube F4(Z) is a direct replacement for Sumitube F4.</p>

<b>STANDARD SIZES</b>						
<b>SIZE</b>	<b>INSIDE DIAMETER AS SUPPLIED (MIN)</b>		<b>INSIDE DIAMETER AFTER RECOVERY (MAX)</b>		<b>WALL THICKNESS AFTER RECOVERY (NOM)</b>	
	<b>INCH</b>	<b>(MM)</b>	<b>INCH</b>	<b>(MM)</b>	<b>INCH</b>	<b>(MM)</b>
3/64	.046	1.2	.023	0.6	.010	0.25
1/16	.063	1.6	.031	0.8	.010	0.25
3/32	.093	2.4	.046	1.2	.012	0.30
1/8	.125	3.2	.062	1.6	.012	0.30
3/16	.187	4.8	.093	2.4	.012	0.30
1/4	.250	6.4	.125	3.2	.014	0.36
3/8	.375	9.5	.187	4.8	.014	0.36
1/2	.500	12.7	.250	6.4	.014	0.36
3/4	.750	19.1	.375	9.5	.017	0.43
1	1.000	25.4	.500	12.7	.020	0.51
1 1/4	1.250	31.7	0.625	15.9	.020	0.51

**Standard colors:** Black, White, Red, Yellow  
Other colors are available upon request

**Standard package:** Spooled (S)

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

**Example:** F4 (Z) 1/4 Black S

# F 4 (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  UL 224 ASTM D882 UL 224 AMS-DTL-23053	1500 min.. 200 min. 1.35 max. no cracking  100 min. 25000 max. 50 max. -15 min.
<b>Electrical:</b> Dielectric withstand (volts) Volume resistivity (ohm-cm)	UL 224 UL 224	2500 min. 1.0 X 10 <sup>14</sup> min.
<b>Chemical:</b> Corrosion 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 90°C

**Specification reference:** UL-224 125°C, 300V, VW-1  
 File E48762 YDPU2, Cat. No. SUMITUBE F4(Z)  
 CSA-C22.2 No. 198-M1999 125°C, 150V  
 File LR33298

**Marking:** SUMITUBE F4(Z) is surface printed with recognized UL and CSA marking.



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