

## FLEXIBLE POLYOLEFIN

### 2 : 1 Shrink Ratio

### PBDE - Free

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

 **RoHS Compliant**

<b>TYPICAL FEATURES</b>	
<p>1) Sumitube F2(Z) is a very flexible, low recovery temperature, flame-retarded, heat-shrinkable polyolefin tubing that is recognized by Underwriters' Laboratories (UL) under Subject 224 as UL VW-1, and the Canadian Standards Association (CSA) at 125° C. Sumitube F2(Z) is PBDE &amp; PBB-free.</p> <p>2) Low recovery temperature benefits the user in more rapid installation, with less potential damage to heat sensitive component insulation systems.</p>	<p>3) Shrink temperature is 90° C.</p> <p>4) Operating temperature range is -55° C to +125° C.</p> <p>5) Sumitube F2(Z) is recommended for all general purpose applications such as insulating, color coding, bundling and light harness jacketing where UL or CSA recognition as VW-1 rated material is desirable.</p> <p>6) Sumitube F2(Z) is a direct replacement for Sumitube F2.</p>

### STANDARD SIZES

<b>SIZE</b>	<b>INSIDE DIAMETER AS SUPPLIED (MIN)</b>		<b>INSIDE DIAMETER AFTER RECOVERY (MAX)</b>		<b>WALL THICKNESS AFTER RECOVERY (NOM)</b>	
	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
3	3.000	76.2	1.500	38.1	.050	1.27
4	4.000	101.6	2.000	50.8	.055	1.40

**Standard Colors:** Black, White, Red, Yellow (Other colors subject to factory acceptance and quote)  
**Standard Package:** Spooled (S) or 4 foot lengths (4'). Note: Metric sizes also available per factory quote.  
**How to Order:** (Type of material) (Size) (Color) (Packaging)  
**Example:** F2(Z) 1/4 Black S

## F2(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 MIN. 50 MAX. ±5
<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, 600V, VW-1  
 File E48762 YDPU2  
 CSA-C22.2 No. 198-M1986 125°C, 600V  
 File LR33298

**Marking:** SUMITUBE F2(Z) is surface printed with recognized UL / CSA markings.



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