

## SEMI-RIGID POLYVINYLIDENE FLUORIDE 2 : 1 Shrink Ratio

### MILITARY SPECIFICATION & UL / CSA



RoHS/RoHS2 Compliant



Lead-Free

TYPICAL FEATURES	
<p>1) SUMITUBE K is a translucent semi-rigid, inherently flame retarded, heat-shrinkable PVDF tubing, that is recognized by Underwriters' Laboratories (UL) Subject 224 with a VW-1 rating and meets or exceeds the requirements of AMS-DTL-23053/8.</p> <p>2) SUMITUBE K is tough and abrasion resistant in mechanical environments. It has excellent properties for cut-through and solvent resistance.</p> <p>3) Shrink temperature is 170°C.</p>	<p>4) Operating temperature range is -55°C to +175°C.</p> <p>5) SUMITUBE K is recommended for applications for strain relieving components such as soldered connections and splices which are in high continuous operating temperature environments. The material is good for applications where abrasion resistance is important.</p>

STANDARD SIZES						
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	.010	0.25
1/16	.063	1.6	.031	0.8	.010	0.25
3/32	.093	2.4	.046	1.2	.010	0.25
1/8	.125	3.2	.062	1.6	.010	0.25
3/16	.187	4.8	.093	2.4	.010	0.25
1/4	.250	6.4	.125	3.2	.012	0.30
3/8	.375	9.5	.187	4.8	.012	0.30
1/2	.500	12.7	.250	6.4	.012	0.30
3/4	.750	19.1	.375	9.5	.017	0.43
1	1.000	25.4	.500	12.7	.019	0.48
1 1/2	1.500	38.1	.750	19.1	.020	0.51
*2	2.000	50.8	1.000	25.4	.020	0.51

**Standard Colors:** Clear (Translucent). Colors available subject to factory acceptance and quote.  
**Standard Package:** 4 feet (4')  
**How to Order:** (Type of material) (Size) (Color) (Packaging)  
**Example:** K 1/4 Clear 4'

\* = non-MIL spec size

# K SPECIFICATION VALUES

PROPERTY (UNITS)	TEST METHOD	REQUIREMENT
<b>Physical:</b> Tensile strength (psi) Elongation (%) Specific gravity Low temperature flex (-55°C) Heat shock (300° C 4 hrs.) Heat resistance (250° C 168 hrs.) Elongation (%) Secant modulus (psi) Deformation (150° C 1 hr.) (%) Longitudinal change (%)	ASTM D638 ASTM D638 ASTM D792 AMS-DTL-23053 AMS-DTL-23053  ASTM D638 ASTM D882 UL 224 AMS-DTL-23053	5000 min. 150 min. 1.8 max. no cracking no cracking  100 min. 120000 min. 50 max. ±10
<b>Electrical:</b> Dielectric strength (volts/mil) Volume resistivity (ohm-cm)	ASTM D876 ASTM D876	800 min. 1.0 X 10 <sup>13</sup> min.
<b>Chemical:</b> Copper stability (180° C 168 hrs.) Elongation (%) Water absorption (%) Fluid resistance (23° C 24 hrs.) Tensile strength (psi) Flammability Shrink temperature, nominal	UL 224 ASTM D570  AMS-DTL-23053 UL 224 VW-1	70% of unaged value min. 0.5 max.  5000 min. Pass 170° C

**Specification reference:** UL 224, 150° C, 600V, VW-1  
 File E75077 YDTU2, Cat. No. SUMITUBE K or 852  
 AMS-DTL-23053/8



915 Armorlite Drive  
 San Marcos, CA 92069

Telephone: (800) 758-3515  
 FAX: (800) 758-3517

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