

## DUAL WALL SEMI-RIGID POLYOLEFIN ENCAPSULANT LINED High Shrink Ratio

### MILITARY SPECIFICATION & UL



**RoHS Compliant**



**Lead-Free**



**Halogen-Free**

### TYPICAL FEATURES

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| <p>1) SUMITUBE W5DL is a semi-rigid, dual wall, non-flame retarded polyolefin heat-shrinkable tubing. Upon the application of heat the inner liner melts and flows to encapsulate components or splices contained within.</p> <p>2) Shrink temperature is 140° C.</p> <p>3) Sumitube W5DL meets or exceeds the requirements of AMS-DTL-23053/4, Class 1. It is also UL recognized 125° C, 600 volts under File E75077.</p> | <p>4) Operating temperature range is -55° C to +110° C.</p> <p>5) SUMITUBE W5DL is recommended in applications for connections and wire harnesses where filling voids and interstices is of importance. W5DL provides good strain relief because it does not adhere to the substrate material; it can be removed for repair of components.</p> |
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### STANDARD SIZES

SIZE	INSIDE DIAMETER AS SUPPLIED (MIN)		INSIDE DIAMETER AFTER RECOVERY (MAX)		WALL THICKNESS AFTER RECOVERY (NOM)	
	INCH	(MM)	INCH	(MM)	INCH	(MM)
1/8	.125	3.2	.023	0.6	.038	0.97
3/16	.187	4.8	.060	1.5	.043	1.10
1/4	.250	6.4	.080	2.0	.047	1.20
3/8	.375	9.5	.135	3.4	.050	1.27
1/2	.500	12.7	.195	5.0	.055	1.40
3/4	.750	19.1	.313	8.0	.065	1.65
1	1.000	25.4	.400	10.2	.075	1.91

**Standard Colors:** Black, White, Red, Yellow, Blue, Brown, Gray

**Standard Package:** 4 feet (4')

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

**Example:** W5DL 1/4 Black 4'

# W5DL SPECIFICATION VALUES

PROPERTY (UNITS)	TEST METHOD	REQUIREMENT
<b>Physical:</b> Tensile strength (psi) Elongation (%) Cold impact (-55° C) Heat shock (250° C, 4 hrs.) Secant modulus (psi) Longitudinal change (%)	ASTM D638 ASTM D638 ASTM D746 AMS-DTL-23053 ASTM D882 AMS-DTL-23053	1500 min. 200 min. no cracking no cracking 2.5 x 10 <sup>4</sup> min. +1, -10
<b>Electrical:</b> Dielectric strength (volts/mil) Volume resistivity (ohm-cm)	ASTM D2671 ASTM D876	500 min. 1 X 10 <sup>15</sup>
<b>Chemical:</b> Corrosion (121° C, 16 hrs.) Water absorption (%) Fluid resistance (23° C, 24 hrs.) Tensile strength (psi) Flammability Shrink temperature, nominal	AMS-DTL-23053 ASTM D570  AMS-DTL-23053	no corrosion 0.5 max.  1000 min. N/A 140° C

**Specification reference:** AMS-DTL-23053/4, Class 1  
 UL 224, File E75077, 600 V, 125° C (not flame-retarded).

## AEROSPACE AND DEFENCE AUSTRALIA

No.14/18 Blanck Street  
 Motorway Business Park  
 Ormeau QLD Australia 4208  
 Tel (07) 5549 0077  
 Fax (07) 5549 0088  
[www.aerodefence.com.au](http://www.aerodefence.com.au)

