tyco Electronics

DWP-125

Raychem

Flexible, flame-retardant, adhesive-lined, polyolefin heat-shrinkable tubing

Adhesive-lined, medium-wall DWP-125 heat-shrinkable tubing is a versatile, environmentally friendly choice for many commercial applications that require mechanical protection and sealing against moisture and chemical ingress.

Typical applications include environmental sealing and protection of irregular shapes, such as wire splices and break-outs, in demanding industries such as appliance and satellite communication. DWP-125 tubing has an outer jacket of radiation-crosslinked, flexible, flame-retardant polyolefin. Unlike other typical flame-retardant tubings, DWP-125 tubing is free of polybrominated biphenyls (PBBs) and polybrominated biphenyl oxides (PBBOs). In Europe, these chemicals are classified as environmentally hazardous substances.

As DWP-125 shrinks, the inner adhesive liner melts and flows to seal and encapsulate components or splices contained within. Because DWP-125 has a three-to-one shrink ratio, only a few sizes are needed to cover a wide range of substrate diameters, enhancing inventory efficiency. DWP-125 is UL-recognized and CSA-certified at 125°C, 600 V.

Temperature rating

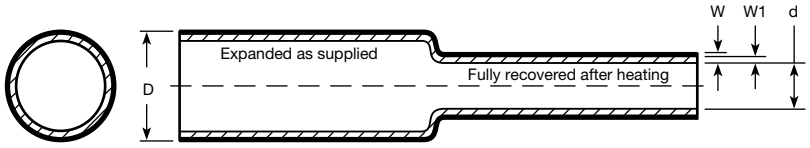
Full recovery temperature:	125°C
Continuous operating temperature:	–40°C to 110°C

*Specifications**

Type	Raychem	UL	CSA
DWP-125	DWP-125 SCD	E35586	LR31929

*When ordering, always specify latest issue.

*Dimensions (*millimeters/*inches)*



Size	Inside diameter (including core) D (min.) Expanded as supplied		d (max.) Recovered after heating		Recovered wall thickness** W Nominal total wall		W1 Nominal adhesive wall	
1/8	3.2	*0.125*	1.0	*0.040*	1.0	*0.040*	0.25	*0.010*
3/16	4.8	*0.187*	1.5	*0.060*	1.40	*0.055*	0.51	*0.020*
1/4	6.4	*0.250*	2.0	*0.080*	1.45	*0.057*	0.56	*0.022*
3/8	9.5	*0.375*	3.0	*0.120*	1.65	*0.065*	0.68	*0.027*
1/2	12.7	*0.500*	4.0	*0.157*	1.78	*0.070*	0.76	*0.030*
3/4	19.0	*0.750*	6.0	*0.230*	2.03	*0.080*	0.76	*0.030*
1	25.4	*1.000*	8.0	*0.320*	2.50	*0.100*	0.76	*0.030*
1 1/2	38.1	*1.500*	13.0	*0.530*	2.50	*0.100*	0.76	*0.030*
2	50.8	*2.000*	20.0	*0.800*	2.50	*0.100*	0.76	*0.030*

**Wall thickness will be less if tubing recovery is restricted during shrinkage.

Ordering information

Colors	**Standard**	Black
	Nonstandard	Red, yellow, blue, green, and white; other colors available on request.
Size selection	Always order the largest size that will shrink snugly over the component being covered.	
Standard packaging	4-foot lengths	
Ordering description	Specify product name, size, and color; for example, DWP-125 1/4-0 (0=Black).	

Specification values

	Property	Unit	Requirement	Method of test
Physical	Dimensions	mm *(inches)*	See reverse	ASTM D 2671
	Longitudinal change	percent	+0, –10	ASTM D 2671
	Tensile strength	psi *(MPa)*	1500 *(10.3)* minimum	ASTM D 2671
	Ultimate elongation	percent	200 minimum	ASTM D 2671
	Secant modulus (as supplied)	psi *(MPa)*	1.5 x 10^4 *(103)* maximum	ASTM D 2671
	Low-temperature flexibility (1 hour at –30°C/*–22°F*)		No cracking	UL 224
	Heat shock (4 hours at 250°C/*482°F*)		No cracking	ASTM D 2671
	Heat aging (7 days at 158°C/*316°F*)			ASTM D 2671
	Followed by tests for:			
	Tensile strength	percent	70% minimum of original	UL 224
	Ultimate elongation	percent	100 minimum	UL 224
	Flexibility		No cracking	UL 224
	Dielectric withstand at 2500 V	seconds	60 minimum	ASTM D 2671
	Dielectric breakdown	volts	50% minimum of unaged specimens	ASTM D 2671
	Dielectric strength	volts/mil *(kV/mm)*	500 *(19.7)* minimum	ASTM D 2671
	Restricted shrinkage		Pass	UL 224
Electrical	Dielectric withstand at 2500 V	seconds	60 minimum	ASTM D 2671
	Dielectric strength	volts/mil *(kV/mm)*	500 *(19.7)* minimum	ASTM D 2671
	Volume resistivity	ohm-cm	10^{14} minimum	ASTM D 2671
Chemical	Corrosive effect (7 days at 158°C/*316°F*)		No corrosion	ASTM D 2671 Procedure B
	Copper stability (7 days at 158°C/*316°F*)		No brittleness, glazing, cracking, or severe discoloration of tubing. No pitting or blackening of copper.	ASTM D 2671 Procedure B
	Followed by test for:			
	Ultimate elongation	percent	100 minimum	ASTM D 2671
	Flammability		Pass	UL 224, all tubing

Note: Except for dimensions, longitudinal change, and flammability, specification values apply to outer jacket only.
Raychem is a trademark of Tyco Electronics Corporation.

Users should independently evaluate the suitability of the product for their application.

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For more information about this product visit www.tycoelectronics.com