

Part Number DWT-ZHP

Header DWT-ZHP Phosphorous-Free Dual Wall Heat Shrink Tubing

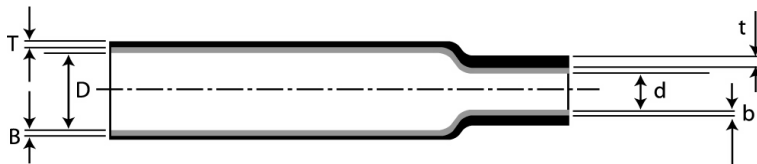
Description DWT-ZHP is a phosphorous-free version of our DWT-(2X/3X/4X) dual wall heat shrink tubing. This dual wall heat shrink tubing comes in 2X/3X/4X versions but with the elimination of the red phosphor to comply with EU requirements, it also has the same RoHS and REACH compliance.

Agency Approval & Compliance UL, CUL, ROHS, Halogen Free, Flame Retardant, F Mark, UL224, REACH, VW1

Application DWT-ZHP series of tubing can be used in a variety of applications where environmental issues are a concern. The adhesive lining provides an excellent barrier to moisture and is good choice of material for repairing cables, covering components and other electronic/electrical connections in harsh weather conditions.

Shrink Ratio and Operating Temperature DWT-ZHP series is available in 2:1, 3:1 and 4:1 shrink ratios. When fully recovered, the 2:1 material will shrink to one half (50%) of its original supplied diameter, the 3:1 material will shrink to one third (33.3%) of its original supplied diameter and the 4X material will shrink to one quarter (25%) of its original supplied diameter. The tubing's wall thickness will also change proportionally to the degree of recovery.

Operating temperature range is from -55 degree C to 125 degrees C (-67 degrees F to 257 degrees F) and the minimum shrink temperature is 120 degree C (230 degrees F)

Size

DWT-ZHP (2X)

Size (mm)	As Supplied		After Recovery		
	Min ID (mm) (D)	Nominal Wall (mm) (T+B)	Max ID (mm) (d)	Total Wall (mm) (t+b)	Nominal Adhesive Wall (mm) (b)
Φ1.2	1.2	0.30±0.10	0.6	0.45±0.12	0.2
Φ1.6	1.6	0.30±0.10	0.8	0.45±0.12	0.2
Φ2.4	2.4	0.35±0.10	1.2	0.55±0.12	0.3
Φ3.2	3.2	0.40±0.15	1.6	0.60±0.15	0.3
Φ4.8	4.8	0.40±0.15	2.4	0.75±0.15	0.35
Φ6.4	6.4	0.40±0.15	3.2	0.75±0.15	0.35
Φ9.5	9.5	0.40±0.15	4.8	0.80±0.20	0.35
Φ12.7	12.7	0.40±0.15	6.4	0.80±0.20	0.35
Φ19.1	19.1	0.50±0.20	9.5	0.95±0.28	0.4
Φ25.4	25.4	0.50±0.20	12.7	1.15±0.28	0.45
Φ38.1	38.1	0.65±0.25	19	1.25±0.41	0.45
Φ50.8	50.8	0.73±0.30	25.4	1.40±0.41	0.5

DWT-ZHP (3X)

Size	As Supplied		After Recovery		
	Min ID (mm) (D)	Nominal Wall (mm) (T+B)	Max ID (mm) (d)	Total Wall (mm) (t+b)	Nominal Adhesive Wall (mm) (b)
Φ2.4	2.4	0.40±0.15	1	0.85±0.25	0.35±0.10
Φ3.2	3.2	0.40±0.15	1	0.85±0.25	0.35±0.10
Φ4.7	4.7	0.40±0.15	1.5	1.05±0.25	0.45±0.10
Φ6.4	6.4	0.45±0.15	2	1.10±0.25	0.45±0.10
Φ7.9	7.9	0.55±0.20	2.5	1.45±0.25	0.45±0.10
Φ9.5	9.5	0.60±0.20	3	1.45±0.25	0.45±0.10
Φ12.7	12.7	0.60±0.20	4	1.50±0.35	0.45±0.15
Φ15.7	15.7	0.65±0.25	5	1.70±0.40	0.45±0.15
Φ19.1	19.1	0.75±0.25	6	2.00±0.45	0.65±0.20
Φ25.4	25.4	0.75±0.25	8.4	2.00±0.55	0.65±0.20
Φ30.0	30	0.80±0.30	10	2.20±0.55	0.75±0.20
Φ40.0	40	0.85±0.35	13.7	2.50±0.55	1.00±0.25
Φ50.0	50	0.85±0.35	16.5	2.50±0.55	1.00±0.25

DWT-ZHP (4X)

Size	As Supplied		After Recovery		
	Min ID (mm) (D)	Nominal Wall (mm) (T+B)	Max ID (mm) (d)	Total Wall (mm) (t+b)	Nominal Adhesive Wall (mm) (b)
Φ4.0	4	0.40±0.20	1	1.00±0.28	0.5
Φ8.0	8	0.40±0.20	2	1.10±0.28	0.5
Φ12	12	0.50±0.20	3	1.40±0.28	0.61
Φ16	16	0.60±0.30	4	1.78±0.38	0.76
Φ19.1	19.1	0.60±0.30	4.8	2.00±0.55	0.76
Φ24	24	0.75±0.40	6	2.25±0.55	0.76
Φ32	32	0.80±0.40	8	2.54±0.55	1.02
Φ38.1	38.1	0.80±0.40	9.5	2.54±0.55	1.02

Typical Properties

Item	Specifications
Shrink Temperature (°C)	120-150

Item	Specifications
Temperature Range (°C)	125
Radial Shrinking Ratio (%)	≥50
Longitudinal Change (%)	≤5
Tensile Strength (MPa)	≥10.4
Ultimate Elongation (%)	≥200
Aging in Circulating-air Oven	158.0±1.0°C, 168hrs
Tensile Strength (MPa) - After Aging	≥7.3
Ultimate Elongation (%) - After Aging	≥100
Dielectric Voltage Withstand (V)	
Volume Resistivity (Ω.cm)	≥10 ¹⁴
Dielectric Voltage (V) AC	
Dielectric Strength (kV/mm)	≥15.0
Flammability	VW-1
Concentricity (%)	≥65
sHeat Shock	
Cold Shock	
Water Absorption (%)	Less than 0.4%
Fluid Resistance	Excellent
(Copper Corrosion)	24 hours at (95±5)%, 2°C, No cracking, No fade
Softening Point (°C)	120±5°C
Tissue Strength (N/25mm)	>80

Availability Available in black and color as special order. Four-foot lengths, master reels and cut pieces

Important Notice All information contained in this data sheet is believed to be reliable and accurate. It is advised however that the end user of this material evaluate the suitability of the product for their specific application.

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