

## Part Number DWTFR

Header DWTFR Adhesive Lined Semi Rigid Polyolefin Heat Shrink Tubing

**Description** Thermosleeve USA DWTFR with adhesive liner is a semi rigid, flame retardant polyolefin heat shrink tubing with good mechanical strength, sealing oil-resistance and insulation properties. Mechanically tough, DWTFR tubing provides good electrical insulation and has high resistance to impact and abrasion. When heated, the internal adhesive flows to forma a positive seal creating an excellent barrier against moisture. Especially designed for reliable performance, DWTFR tubing is manufactured to cover a broader range of applications in fewer sizes *due to its bigger* shrink ratios. DWTFR has a minimum shrink temperature rating of 100 degrees C (212 degrees F).

Agency Approval & Compliance UL, CUL, ROHS, Flame Retardant, UL224, REACH, VW1

**Application** DWTFR heat shrink tubing with adhesive liner is designed to seal and protect components and electrical splices from moisture and corrosion. Widely used to provide insulation and strain relief cover to both wire terminations and electrical connectors, DWTFR tubing is a tough material commonly used for both automotive and harsh environment applications. DWTFR tubing shrinks quickly, requires no special skills and is easy to use. The adhesive liner bonds to a wide variety of materials including plastics, rubbers and metals.

**Shrink Ratio and Operating Temperature** DWTFR has a 4:1 shrink ratio and when fully recovered, the 4:1 material will shrink to one fourth (25%) of its original supplied diameter. DWTFR has a continuous operating temperature rating of -40 degrees C (-40 degrees F) and 125 degrees C (257 degrees F)

## **Standard Sizes and Dimension**



Size (Inches)	As Supplied		Wall after recovery		
	ID (mm) (D)	Nominal Wall Thickness (T)	ID (mm) (d)	Total wall (t+b)	Nominal Adhesive Wall (b)
13/64	5.2	0.55	≥1.20	1.65±0.2	0.95±0.05
5/16"	≥ 7.6	0.60	≤1.60	1.85±0.2	1.15±0.06
3/8"	≥ 9.0	0.60	≤2.10	1.9±0.3	1.10±0.06
7/16"	≥ 11.6	0.75	≤2.30	2.30±0.3	1.35±0.07
11/16"	≥ 17.8	0.83	≤4.45	2.70±0.3	1.50±0.08

## **Typical Properties**

Item	Specification
Shrink Temperature (°C)	110 -150°C
Temperature Range (°C)	-40°C-+125°C
Radial Shrinking Ratio (%)	
Longitudinal Change (%)	≤10
Tensile Strength (MPa)	≥10.4 MPa

Ultimate Elongation (%)	≥200
Aging in Circulating-air Oven	
Tensile Strength (MPa) - After Aging	
Ultimate Elongation (%) - After Aging	
Dielectric Strength - After Aging	
Dielectric Voltage Withstand (V)	
Dielectric Strength at 1min, AC2500V	
Volume Resistivity ( $\Omega$ .cm)	≥10 <sup>12</sup>
Dielectric Voltage (V) AC	
Dielectric Strength (kV/mm)	
Flammability	VW-1
Concentricity (%)	
Heat Shock	No cracking
Cold Shock	No cracking
2% scan modulus	
Water Absorption (%)	
Oil Resistance	
Fluid Resistance	
(Copper Corrosion)	No Corrosion
Softening Point (°C)	
Tissue Strength (N/25mm)	
Peel Strength of Meltable Liner (N/25mm)	

**Availability** Four-foot lengths 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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