

Heat Shrink for Automotive Parts

A1-FL Fully Flame-Retardant Dual Wall Heat-Shrinkable Tubing Introduction

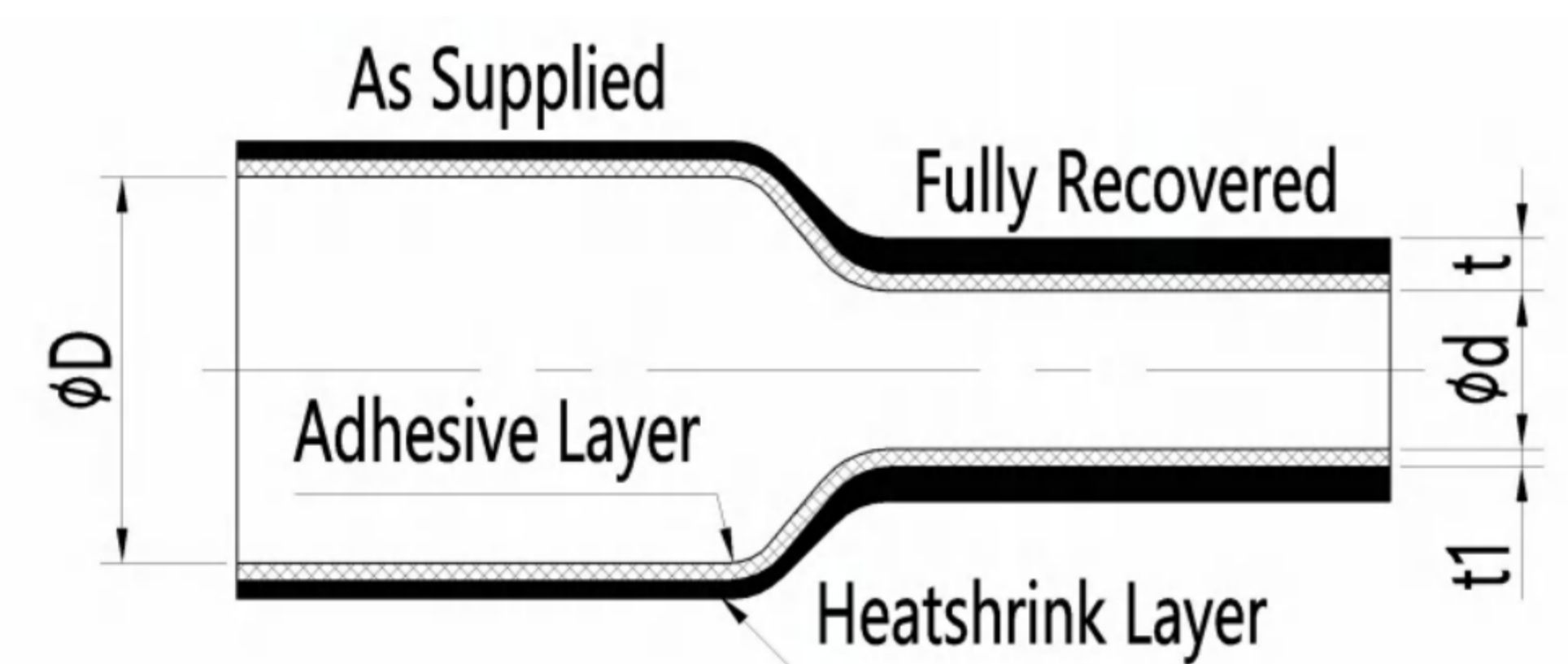
Polyolefin dual wall heat-shrinkable tube, high shrinkage rate, completely flame-retardant and high mechanical strength, providing stress relief and abrasion protection for wire splices, terminals, fuse links and series element.

Features

- Operating temperature: -40~135 °C
- Minimum full recovery temperature: 135 °C
- Environmentally friendly, ELV & RoHS compliant
- Shrink ratio: 4:1
- Standard color: Black (outer jacket) White (inner layer)

Dimensions

Part No. A1-FL	As supplied (mm)	After recovered (mm)		
	Inner diameter D (min.)	Inner diameter d (max.)	Wall thickness t (nom.)	Adhesive Wall thickness t1 (nom.)
5.1	5.1	1.25	1.20	0.60
7.6	7.6	1.65	1.60	0.70
9.0	9.0	2.29	1.80	0.70
11.6	11.6	2.54	2.29	1.30
17.8	17.8	4.45	2.54	1.40



Technical Data

Property	Test method	Requirement
Material Properties		
Longitudinal change	ASTM D2671	$\geq -10\%$
Tensile strength	ASTM D2671	≥ 10.3 MPa
Ultimate elongation	ASTM D2671	$\geq 250\%$
Secant modulus 2% (Outer layer / recovered)	ASTM D2671	≥ 137 MPa
Heat shock (225°C/4h)	ASTM D2671	No cracking, dripping or flowing (outer jacket)
Dielectric strength (outer layer)	ASTM D2671	≥ 16 kV/mm
Volume resistivity	ASTM D2671	$\geq 1.0 \times 10^{12}$ Ω .cm
Flammability	ISO 6722-1	Self-extinguishing within 30s
Splice performance		
Current leakage	5% salt solution/24h, DC 50V	$\leq 0.25\mu$ A
Thermal shock	50°C to 130°C for 5 cycles	
Current leakage		$\leq 0.25\mu$ A
Heat aging	168 h at 130°C \pm 5°C	
Current leakage		$\leq 0.25\mu$ A
Fluid immersion	24 h at 25°C \pm 3°C	
Current leakage	ASTM Reference Fuel C VV-F-800 Diesel Fuel	$\leq 0.25\mu$ A
	1h at 100°C \pm 3°C ASTM #3 Oil	