

# CFHR

INSULATE  
SEAL  
PROTECT

6:1  
SHRINK RATIO



## HIGH RATIO, FLAME RETARDANT CROSS-LINKED POLYOLEFIN TUBING

HIGH RATIO HEAT SHRINK TUBING ACCOMMODATES EXTREME DIFFERENCES BETWEEN CABLES, CONNECTORS AND BACKSHELLS

### FEATURES AND BENEFITS

- Up to 6:1 shrink ratio
- Flame retardant
- Accommodates a wide variety of connector shapes and configurations
- Available in semi-rigid or flexible material
- Optional thermoplastic adhesive liner for complete environmental protection and insulation
- Available in 25 ft reels
- Continuous operating temperature: -55°C to 110°C
- Shrink temperature: 120°C
- Standard colors: Black

### STANDARDS

- Meets material properties of SAE- AMS- DTL 23053/15

### TYPICAL APPLICATIONS

- Wire harnesses
- Abrasion and impact resistance
- Strain relief and protection of cables and connectors

### ORDERING

- Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.
- Please specify the product name, order reference number and options you require.  
Order Example: CFHR, 0750, black, unprinted, unlined, 25 ft lengths



## DIMENSIONS

SEMI-RIGID ORDER NUMBER	EXPANDED		RECOVERED				LENGTHS	
	INTERNAL DIAMETER (MIN) D		INTERNAL DIAMETER (MAX) d		WALL THICKNESS (MIN) W			
	MM	IN	MM	IN	MM	IN		
0750	19.0	0.750	3.2	0.125	3.2	0.123	1.2	48
1300	33.0	1.300	5.5	0.220	3.4	0.135	1.2	48
1750	44.4	1.750	7.4	0.290	3.6	0.140	1.2	48
2000	50.8	2.000	8.3	0.330	4.3	0.170	1.2	48
2750	69.8	2.750	11.7	0.460	4.8	0.190	1.2	48
3500	88.9	3.500	17.1	0.673	4.3	0.170	1.2	48
4700	119.4	4.700	22.9	0.900	4.8	0.190	1.2	48

  

FLEXIBLE ORDER NUMBER	EXPANDED		RECOVERED				LENGTHS	
	INTERNAL DIAMETER (MIN) D		INTERNAL DIAMETER (MAX) d		WALL THICKNESS (MIN) W			
	MM	IN	MM	IN	MM	IN		
1250	31.8	1.25	5.6	0.220	1.5	0.060	1.2	48
1750	44.4	1.75	8.0	0.315	2.4	0.095	1.2	48
2500	63.5	2.50	12.7	0.500	3.0	0.120	1.2	48
3000	76.2	3.20	19.1	0.750	3.6	0.140	1.2	48

## TECHNICAL DATA

PROPERTY	TEST METHOD	REQUIREMENT	UNITS
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### PHYSICAL

Tensile Strength	ASTM D412	1,200 (8.3) minimum	2,016 (13.9)	psi (MPa)
Elongation	ASTM D638	200 minimum	921	percent
Low Temperature Flexibility	4 hrs at -67 °F (-55 °C)	No cracking	No cracking	
Heat Shock	4 hrs at 437 °F (225 °C)	No cracks, flowing or dripping	No cracks, flowing or dripping	
Heat resistance:	168 hrs at 302 °F (150 °C)			
Tensile strength	ASTM D412	1,000 (6.9) minimum	2,135 (14.72)	psi (MPa)
Ultimate elongation	ASTM D412	100 minimum	623	percent

### ELECTRICAL

Dielectric Strength	ASTM D2671	200 (7.9) minimum	Pass	volts/mil (Kv/mm)
Volume Resistivity	ASTM D876	1 x 10 <sup>13</sup> minimum	1.8 x 10 <sup>15</sup>	Ohm-cm

### CHEMICAL

Corrosion	16 hrs at 250 °F (121 °C)	No corrosion	No corrosion	
Water absorption, percent, maximum	24 hrs at 73 °F (23 °C)	0.5	0.05	percent
Flammability	ASTM D2671, Procedure C	Self extinguishing 1 minute; 25% maximum flag burnt	Pass	
Fluid resistance: (Hydraulic fluid (petroleum base), JP-8, DieselLubricating oil, 5 percent NaCl, Deicing fluid)	24 hrs immersion at 75 °F (24 °C) in various fluids ***			
Tensile strength	ASTM D412	750 (5.2) minimum	1,612 (11.11)	psi (MPa)
Dielectric strength	ASTM D2671	200 (7.9) minimum	330 (13.0)	volt/mil (Kv/mm)
Fungus resistance	ASTM G21	No growth or Tensile higher than 1200 psi and Elongation higher than 200% after exposure	Pass	