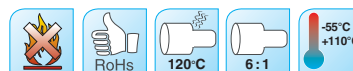


HFR - Heavy wall crosslinked polyolefin



Features & Benefits

- Accommodates a wide variety of connector shapes/configurations.
- Optional thermoplastic adhesive liner for complete environmental protection and insulation
- Shrink ratio 6:1
- Shrink temperature 120°C
- Operating temperature range -55°C to +110°C



Standard Colours & Colour Codes

Black - 0

Applications

High ratio heat shrinkable tubing accommodates extreme differences between cables, connectors and backshells.

Ordering Description	Expanded	Recovered		Delivery Unit
	Internal Diameter (min) D	Internal Diameter (max) D	Wall Thickness (nom) W	Lengths 1.22 m pcs.
	mm	mm	mm	m
HFR-19/3.2-colour code-STK	19,0	3,2	3,20	35
HFR-33/5.5-colour code-STK	33,0	5,5	3,40	60
HFR-44.4/7.4-colour code-STK	44,4	7,4	3,60	40
HFR-50.8/8.3-colour code-STK	50,8	8,3	4,30	25
HFR-69.8/11.7-colour code-STK	69,8	11,7	4,80	15
HFR-88.9/17.1-colour code-STK	88,9	17,1	4,80	10
HFR-119.4/22.9-colour code-STK	119,4	22,9	4,80	5

Properties:

Property	Test Method	Typical Performance	Property	Test Method	Typical Performance
Physical			Chemical		
Tensile Strength	ASTM-D 412, ISO 37	14,5 MPa	Copper Corrosion	ASTM-D 2671	No Corrosion
Elongation	ASTM-D 412, ISO 37	600%	Chemical Resistance		good to excellent
Elongation after Heat Aging (168 Hrs @ 150°C)	ASTM D2671	400%	Water Absorption	ASTM-D570	0,10%
Heat Shock (4 Hrs @ 225°C)	ASTM D2671	No cracking or flowing	Adhesive		
Longitudinal Change	ASTM D2671	+1%, -10%	Adhesive lap shear (1in./min at 23°C)	ASTM-D 1002	0,875 Mpa
Low Temperature Flexibility	ASTM-D 2671 Meth. C	Does not break at -55°C	Softening Point	ASTM E28	92°C/-5°C
Specific Gravity	ASTM D792	1.10g/cm ³	Adhesive Peel Strength (300mm/min at 23°C) > to steel, aluminium, PE >to PVC	ASTM-D 1000	110 N/25mm 80 N/25mm
Hardness (Shore D)	ASTM D2240	50D	Adhesive blocking (30°C)	ASTM-D 1146	20 pil
Electrical			Water Penetration	STM 706	No penetration 236hrs of continuous immersion
Dielectric Strength	ASTM D149, IEC 243	20 kV/mm			
Dielectric Voltage Withstand (2500V, 60Hz, 1 Min)	UL 486D	No Breakdown			
Volume Resistivity	ASTM D257	10 ¹⁶ Ω-cm			