

QFRA3



**FLAME RETARDANT, HEAVY WALL, ADHESIVE LINED,
POLYOLEFIN TUBING
SHRINK RATIO 3:1**



Features/Applications

QFRA is made from radiation cross-linked polyolefin lined with hot melt adhesive. Suitable for protecting electrical splices, joints and terminations where flame retardant, electrical insulation and water proof are required.

- Operating temperature: -55°C to +110°C
- Minimum shrink temperature: 120°C
- Standard color: Black
- RoHS Compliant

Technical Data

Property	Test Method	Typical Data
Tensile Strength	ASTM D 2671	≥ 14 MPa
Tensile Strength after Aging (158°C, 168 hrs.)	ASTM D 2671	≥ 12MPa
Longitudinal Change after Shrinking	ASTM D 2671	0 to -10%
Elongation at Break	ASTM D 2671	≥ 300%
Elongation at Break after Aging (120°C, 168 hrs.)	ASTM D 2671	≥ 200%
Dielectric Strength	IEC 243	≥ 20kV / mm
Heat Shock (225°C, 4 hrs.)	ASTM D 2671	No cracking or flowing
Volume Resistance	IEC 93	≥ 10 ¹⁴ Ω.cm
Flammability	SAE-AMS-DTL-23053/5	Self extinguish in 30 seconds

Thermoplastic Adhesive for QFRA3

Property	Test Method	Typical Data
Water Absorption	ISO 62	< 0.2%
Softening Point	ASTM D E28	85°C
Peel Strength (PE)	DIN 30672	4N/cm
Copper Stability	ASTM D 2671	Non-Corrosive
Resistance to Fungus and Decay	ISO 846	Pass

Product Dimensions

Size (mm)	As Supplied (mm)	After Recovered (mm)		Tubing Shape	Standard Packaging
	Inside Diameter (min.)	Inside Diameter (max.)	Total Wall Thickness (min.)		Cut to Length Pcs. *(QB) Qty per bag 48"
9/3	9	3	2.0	Round	5
13/4	13	4	2.5	Round	5
22/6	22	6	2.7	Round	5
33/8	33	8	3.2	Round	5
40/12	40	12	4.1	Round	5
55/16	55	16	4.1	Round	5
75/22	75	22	4.1	Round	3
95/29	95	29	4.1	Round	3
115/34	115	34	4.3	Round	3
130/36	130	36	4.3	Round	3

- Notes:
1. * See Part Number Guide for standard packaging codes.
 2. Special sizes, packaging, colors and cut pieces are available upon request.