

# Q2-F

**ENVIRONMENT FRIENDLY, FLEXIBLE,  
HIGHLY FLAME RETARDANT, HEAT SHRINKABLE TUBING  
SHRINK RATIO 2:1**


## Features/Applications

Provides both commercial and military applications electrical insulation and protects in-line components, disconnect terminals and splices with its high strength and excellent resilience. Bundles wires for very flexible light-duty harnesses. Identifies or color-codes wires, cables, terminals and components.

Operating temperature: -55°C to +135°C

Minimum shrink temperature: 70°C

Full recovery temperature: 100°C

Approvals:  125°C, VW-1, 600V, SAE-AMS-DTL-23053/5, Class 1 & 3  
File No. E236137, Sony-SS-00259

Material: No PBB's, PBBO's, PBBE's, Free of Cadmium & Lead

Standard colors: Black, red, blue, yellow, green, white, clear (class 2)

RoHS Compliant



## Technical Data

Property	Test Method	Typical Data
Tensile Strength	ASTM D 2671	14 MPa
Elongation at Break	ASTM D 2671	600%
Elongation After Aging 175°C, 168 hrs.	ASTM D 2671	350%
Flammability	UL 224 VW-1, SAE-AMS-DTL-23053/5	Pass
Heat Shock (250°C / 4 hrs.)	ASTM D 2671	No cracking
Cold Bend (-55°C / 4 hrs.)	ASTM D 2671	No cracking
Dielectric Strength	ASTM D 150	20KV / mm
Volume Resistance	ASTM D 876	10 <sup>14</sup> Ω.cm
Copper Corrosion	UL 224	Pass
Water Absorption	ASTM D 570	0.15%
Chemical Resistance	SAE-AMS-STL-23053/5	Pass
Longitudinal Shrinkage	UL 224	0 ± 5%
Eccentricity	UL 224	30%

## Product Dimensions (Inch)

Size	As Supplied		After Recovered (mm)		Standard Packaging		
	Inside Diameter (mm)	Wall Thickness (nominal)	Inside Diameter (max.)	Wall Thickness (min.)	Mini Spool (Feet)	Standard Spool (M)	Cut Length (Inch)
3/64	1.6±0.2	0.20	0.60	0.40±0.08	100	1000	6", 48"
1/16	2.0±0.2	0.20	0.80	0.43±0.08	100	1000	6", 48"
3/32	3.1±0.2	0.25	1.20	0.51±0.08	100	500	6", 48"
1/8	3.7±0.3	0.25	1.60	0.51±0.08	100	500	6", 48"
3/16	5.2±0.3	0.25	2.40	0.51±0.08	100	500	6", 48"
1/4	6.8±0.3	0.30	3.20	0.64±0.08	100	500	6", 48"
5/16	8.8±0.3	0.30	4.00	0.64±0.08	100	250	6", 48"
3/8	10.7±0.4	0.30	4.80	0.64±0.08	100	250	6", 48"
1/2	13.7±0.4	0.30	6.40	0.64±0.08	100	200	6", 48"
5/8	16.7±0.4	0.35	8.00	0.76±0.08	50	200	6", 48"
3/4	20.5±0.4	0.40	9.50	0.76±0.08	50	200	6", 48"
1	26.5±0.4	0.45	12.70	0.89±0.12	50	200	6", 48"
1 1/4	33.5±0.7	0.45	15.90	1.02±0.15	50	100	6", 48"
1 1/2	41.0±0.8	0.50	19.10	1.02±0.15	50	100	6", 48"
2	52.0±1.0	0.50	25.40	1.14±0.16	50	100	6", 48"
3	82.0±1.0	0.55	38.10	1.27±0.20	--	100	6", 48"
4	104.0±1.0	0.55	50.80	1.40±0.23	--	100	6", 48"
5	126.0±1.0	0.55	63.50	1.52±0.23	--	50	6", 48"
6	152.0±1.0	0.55	75.00	1.52±0.23	--	50	6", 48"

Special sizes, cut pieces are available upon request..