

Q2-F RoHS Compliant

**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
- Approvals⁴: File No. E236137, File No. 242540, 125°C, VW-1, 600V
- Meets: SAE-AMS-DTL-23053/5 Class 1 & 3, 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
Operating Temperature	IEC 216	-55°C to +135°C
Tensile Strength	ASTM D 2671	>14 MPa
Ultimate Elongation	ASTM D 2671	> 600%
Longitudinal Shrinkage	UL 224	0 ± 5%
Eccentricity	UL 224	< 30%
Heat Aging Tensile Strength Ultimate Elongation	175°C, 168 hrs.	> 11 MPa > 350 %
Flammability	VW-1	Pass
Dielectric Strength	ASTM D 150	>20kV / mm
Voltage Withstand	ASTM D 2671 / AC2500V. 1 min.	No Breakdown
Volume Resistance	ASTM D 876	>10 ¹⁴ Ω.cm
Copper Stability	UL 224	Pass
Copper Corrosion	UL 224	No Corrosion

Product Dimensions

Size		As Supplied (mm)	After Recovered (mm)		Standard Packaging				
			Inside Diameter (min.)	Inside Diameter (max.)	Wall Thickness (min.)	Mini Spool *(MS) (Feet)	Standard Spool *(SS) (Feet)	Box Length *(QX) (Feet)	Cut to Length Pcs. *(QB) Qty per bag
Inch	mm							6"	48"
3/64	1.2	1.2	0.6	0.40	100	1000	50	40	25
1/16	1.6	1.6	0.8	0.40	100	1000	50	36	25
3/32	2.4	2.4	1.2	0.48	100	500	50	32	25
1/8	3.2	3.2	1.6	0.48	100	500	50	28	25
3/16	4.8	4.8	2.4	0.48	100	500	30	24	25
1/4	6.4	6.4	3.2	0.56	100	500	30	20	25
5/16	8.0	8.0	4.0	0.62	100	250	30	18	24
3/8	9.5	9.5	4.8	0.62	100	250	30	16	25
1/2	12.7	12.7	6.4	0.62	100	200	15	14	5
5/8	15.9	15.9	8.0	0.68	50	200	15	14	5
3/4	19.1	19.1	9.5	0.68	50	200	15	12	5
1	25.4	25.4	12.7	0.87	50	200	15	8	5
1 1/4	31.8	31.8	15.9	1.00	50	100	-	8	5
1 1/2	38.1	38.1	19.1	1.00	50	100	-	5	5
2	50.8	50.8	25.4	1.10	50	100	-	3	5
3	76.2	76.2	38.1	1.20	-	100	-	2	2
4	102.0	102.0	50.8	1.35	-	100	-	1	2
5	125.0	125.0	63.5	1.40	-	50	-	1	2
6	151.0	151.0	75.0	1.40	-	50	-	1	2

Notes:

1. * See Part Number Guide for standard packaging codes.
2. Cross Reference Guide available.
3. Special sizes, packaging, colors and cut pieces are available upon request
4. Clear tubing is not flame retardant, UL or CSA approved.

PART NUMBER EXAMPLE: **Q2-F-3/64-01-QB48IN-25**

PART NUMBER EXAMPLE:

X - X - X - X X - X

- (6) QUANTITY - QB (Q BAG) ONLY
- (5) LENGTH - SEE LIST BELOW
- (4) STANDARD PACKAGING CODES - SEE LIST BELOW
- (3) COLOR - SEE LIST BELOW
- (2) SIZE - SEE TABLE BELOW
- (1) TYPE - SEE SPEC SHEET(Q1, Q2-F, Q-150K, etc...)

NOTE: Table below represents information on individual spec sheet

- ④ **STANDARD PACKAGING CODES:**
MS - MINI SPOOL + LENGTH (FT or M)
QB - Q BAG (Polybag contains quantity specified)
QX - Q BOX + LENGTH (FT or M)
RK - REFILL BAG
SS - STANDARD SPOOL + LENGTH (FT or M)

- ③ **COLOR CODES:**
01 BLACK
02 CLEAR
03 WHITE
04 RED
05 BLUE
06 GREEN
07 YELLOW
08 YELLOW / GREEN
09 BROWN
10 ORANGE
11 ASSORTED COLORS
12 GRAY

- ⑤ **LENGTH:**
FT = FEET
M = METERS
IN = INCH
MM = MILLIMETERS

HEAT SHRINK THIN WALL TUBING Qualtek Electronics

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FLEXIBLE, FLAME RETARDANT POLYOLEFIN TUBING
ENVIRONMENT FRIENDLY, HIGHLY FLAME RETARDANT
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- Operating temperature: -55°C to +135°C
- Minimum shrink temperature: 70°C
- Full recovery temperature: 100°C
- Approval: **UL**, File No. E236137, **CS** 242540
- 125°C, VW-1, 600V
- Meets: SAE-AMS-DTL-2205/35 Class 1 & 3, 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
RoHS Status	ASTM D2011	RoHS
Exemption of Lead	ASTM D2011	RoHS
Temperature/Aging (100°C/168 hrs.)		50%
Flammability	UL 94V-0, SAE-AMS-DTL-2205/35	Pass
Thermal Shrink (100°C)	ASTM D2011	2:1 (max)
Color Shrink (100°C/4 hrs.)	ASTM D2011	Non-coloring
Dielectric Strength	ASTM D149	30 kV/mm
Volume Resistance	ASTM D199	> 10 ¹² Ohm-cm
Surface Resistance	UL 224	Pass
Water Absorption	ASTM D570	0.15%
Chemical Resistance	SAE-AMS-DTL-2205/35	Pass
Longitudinal Tensile	UL 224	5.2% min
Elongation	UL 224	> 300%

Product Dimensions							
Size (Inch)	As Supplied (mm)			After Recovered (mm)			Standard Packaging
	Inside Diameter (min.)	Inside Diameter (max.)	Wall Thickness (min.)	Mini Spool (MS) (Feet)	Standard Spool (SS) (Feet)	Box Length (QX) (Feet)	Cut Length Pcs. Qty per bag
3/64	1.2	0.6	0.40	100	1000	50	48
1/16	1.6	0.8	0.40	100	1000	50	36
3/32	2.4	1.2	0.48	100	500	50	32
1/8	3.2	1.6	0.48	100	500	50	28
3/16	4.8	2.4	0.48	100	500	30	25
1/4	6.4	3.2	0.56	100	500	30	25
5/16	8.0	4.0	0.62	100	250	30	18
3/8	9.5	4.8	0.62	100	250	30	18
1/2	12.7	6.4	0.62	100	200	15	14
5/8	15.9	8.0	0.68	50	200	15	14
3/4	19.1	9.5	0.68	50	200	15	12
1	25.4	12.7	0.87	50	200	15	8
1 1/4	31.8	15.9	1.00	50	100	-	8
1 1/2	38.1	19.1	1.00	50	100	-	5
2	50.8	25.4	1.10	50	100	-	3
3	76.2	38.1	1.20	-	100	-	2
4	102.0	50.8	1.35	-	100	-	1
5	125.0	63.5	1.40	-	50	-	1
6	151.0	75.0	1.40	-	50	-	1

Notes:
 1. See page 8, Part Number Guide for dimensional packaging codes.
 2. Cross Reference Guide located on page 10.
 3. Special color packaging, colors and cut pieces are available upon request.

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SAMPLE TABLE: Q2-F

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4	102.0	50.8	1.35	-	100	-	2	2
5	125.0	63.5	1.40	-	50	-	1	2
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