

## Q2-Z



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

### Features/Applications

An environment friendly, flame retardant shrink tubing. Specially designed formulation to meet UL 224 and CSA 22.2 on the basis of no harmful substance such as PBB, PBBE, PBBO and toxic metal compounds. Widely used for insulation, strain relief, harnessing, bundling and color coding of wire with a low shrink temperature. Good flexibility and superior mechanical strength in such fields as electronics, communication and automobile.

- Operating temperature: -55°C to +125°C
- Minimum shrink temperature: 70°C
- Full recovery temperature: 100°C
- Approvals: File No. E236137, File No. 242540, 125°C, VW-1, 600V
- Meets: Sony SS-00259,
- Material: No PBB's, PBBO's, PBBE's
- Cadmium content <5 ppm, Lead content <10 ppm
- Standard colors: Black, red, blue, yellow, green, white
- Other colors are available upon request.
- RoHS Compliant



Technical Data		
Property	Test Method	Typical Data
Operating Temperature	UL 224	-55°C to +125°C
Tensile Strength	ASTM D 2671	> 14 MPa
Ultimate Elongation	ASTM D 2671	> 400%
Longitudinal Shrinkage	UL 224	0 ± 5%
Eccentricity	ASTM D 2671	< 30%
Heat Aging Tensile Strength	158°C, 168 hrs.	> 12 MPa
Ultimate Elongation		> 350%
Flammability	VW-1	Pass
Voltage Withstand	ASTM D 2671 / AC 2500, 1 min.	No Breakdown
Volume Resistance	IEC 93	> 10 <sup>14</sup> Ω.cm
Copper Stability	UL 224	Pass
Copper Corrosion	UL 224	No Corrosion

Product Dimensions				
Size (mm)	As Supplied (mm)	After Recovered (mm)		Standard Spool *(SS) (Meter)
	Inside Diameter (min.)	Inside Diameter (max.)	Wall Thickness (min.)	
1.0	1.0	0.50	0.33	200
1.5	1.5	0.75	0.36	200
2.0	2.0	1.00	0.44	200
2.5	2.5	1.25	0.44	200
3.0	3.0	1.50	0.44	200
3.5	3.5	1.75	0.44	200
4.0	4.0	2.00	0.44	200
5.0	5.0	2.50	0.56	100
6.0	6.0	3.00	0.56	100
7.0	7.0	3.50	0.56	100
8.0	8.0	4.00	0.56	100
9.0	9.0	4.50	0.56	100
10.0	10.0	5.00	0.56	100
11.0	11.0	5.50	0.56	100
12.0	12.0	6.00	0.56	50
13.0	13.0	6.50	0.65	50
14.0	14.0	7.00	0.69	50
15.0	15.0	7.50	0.69	50
16.0	16.0	8.00	0.69	50
18.0	18.0	9.00	0.80	50
20.0	20.0	10.00	0.80	50
22.0	22.0	11.00	0.80	50
25.0	25.0	12.50	0.90	50
28.0	28.0	14.00	0.90	50
30.0	30.0	15.00	0.90	50
35.0	35.0	17.50	0.90	50
40.0	40.0	20.00	1.00	50
50.0	50.0	25.00	1.00	50
60.0	60.0	30.00	1.00	30
70.0	70.0	35.00	1.20	30
80.0	80.0	40.00	1.20	30
100.0	100.0	50.80	1.30	30
125.0	125.0	63.50	1.30	15
150.0	150.0	76.00	1.30	15

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 to Length Pcs. *(QB)	
							Qty per bag	6"
3/64	1.2	0.60	0.33	100	1000	50	40	25
1/16	1.6	0.80	0.36	100	1000	50	36	25
3/32	2.4	1.20	0.44	100	500	50	32	25
1/8	3.2	1.60	0.44	100	500	50	28	25
3/16	4.8	2.40	0.56	100	500	30	24	25
1/4	6.4	3.20	0.56	100	500	30	20	25
5/16	8.0	4.00	0.56	100	250	30	18	25
3/8	9.5	4.80	0.56	100	250	30	16	25
1/2	12.7	6.40	0.65	100	200	15	14	5
5/8	16.0	8.00	0.69	50	200	15	14	5
3/4	19.1	9.50	0.80	50	200	15	12	5
1	25.4	12.70	0.90	50	200	15	8	5
1 1/4	31.8	15.90	0.90	50	100	-	8	5
1 1/2	38.1	19.10	1.02	50	100	-	5	5
2	50.8	25.40	1.02	50	100	-	3	5
3	76.2	38.10	1.20	-	100	-	2	2
4	101.6	50.80	1.30	-	100	-	1	2
5	126.0	63.50	1.30	-	50	-	1	2
6	150.0	76.00	1.30	-	50	-	1	2

Notes:  
 1. \* See page 13 - Part Number Guide for standard packaging codes.  
 2. Cross Reference Guide located on page 3.  
 3. Special sizes, packaging, colors and cut pieces are available upon request.