

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 UL224 and CSA C22.2 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
 Approval: UL 224 125°C, 600V, VW-1, File No. E236137
 Material: No PBB's, PBBO's, PBBE's,
 Cadmium content <5 ppm, Lead content <10 ppm
 Standard colors: Black, red, blue, yellow, green, white, yellow-green
 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 638	14MPa
Ultimate elongation	ASTM D 638	400%
Longitudinal shrinkage	UL 224	± 5%
Eccentricity	ASTM D 2761	< 20%
Heat aging Tensile strength Ultimate elongation	158°C / 168 hrs.	14MPa 350%
Flammability	VW-1	Pass
Dielectric strength	IEC 243	20KV/mm
Volume resistance	IEC 93	10 ¹⁴ Ω.cm
Copper stability	ASTM D 2671	Pass

Product Dimensions (mm/inch)

Normal Size (mm)	As Supplied (mm)		After Recovered (mm)		Standard Length (m/spool)
	Inside Diameter (mm)	Wall Thickness (nominal)	Inside Diameter (max.)	Wall Thickness (min.)	
3/64	1.6±0.2	0.18	0.60	0.33	200
1/16	2.0±0.2	0.18	0.80	0.36	200
3/32	3.1±0.2	0.25	1.20	0.44	200
1/8	3.7±0.3	0.25	1.60	0.44	200
3/16	5.2±0.3	0.25	2.40	0.51	100
1/4	6.8±0.3	0.25	3.20	0.56	100
5/16	8.8±0.3	0.30	4.00	0.56	100
3/8	10.7±0.4	0.30	4.80	0.56	100
1/2	13.7±0.4	0.30	6.40	0.65	50
5/8	16.7±0.4	0.35	8.00	0.69	50
3/4	20.5±0.4	0.40	9.50	0.80	50
1	26.5±0.4	0.45	12.70	0.90	50
1 1/4	33.5±0.7	0.45	15.90	1.02	50
1 1/2	41.0±0.8	0.50	19.10	1.02	50
2	52.0±1.0	0.50	25.40	1.14	50
3	82.0±1.0	0.50	38.10	1.27	30
4	104.0±1.0	0.55	50.80	1.40	30
5	126.0±1.0	0.55	63.50	1.50	15
6	152.0±1.0	0.55	76.00	1.50	15

Feet spool lengths are available subject to requirement.
 Special sizes, cut pieces are available upon request.

Product Dimensions (mm)

Normal Size (mm)	As Supplied (mm)		After Recovered (mm)		Standard Length (m/spool)
	Inside Diameter (mm)	Wall Thickness (nominal)	Inside Diameter (max.)	Wall Thickness (min.)	
φ 1.0	1.5±0.2	0.18	0.50	0.33	200
φ 1.5	2.0±0.2	0.18	0.75	0.36	200
φ 2.0	2.7±0.2	0.25	1.00	0.44	200
φ 2.5	3.1±0.2	0.25	1.25	0.44	200
φ 3.0	3.7±0.3	0.25	1.50	0.44	200
φ 3.5	4.0±0.3	0.25	1.75	0.44	200
φ 4.0	4.7±0.3	0.25	2.00	0.44	200
φ 5.0	5.6±0.3	0.25	2.50	0.56	100
φ 6.0	6.8±0.3	0.25	3.00	0.56	100
φ 7.0	7.7±0.3	0.25	3.50	0.56	100
φ 8.0	8.8±0.3	0.30	4.00	0.56	100
φ 9.0	9.8±0.3	0.30	4.50	0.56	100
φ 10	10.7±0.4	0.30	5.00	0.56	100
φ 11	11.7±0.4	0.30	5.50	0.56	100
φ 12	12.7±0.4	0.30	6.00	0.56	50
φ 13	13.7±0.4	0.30	6.50	0.65	50
φ 14	14.7±0.4	0.35	7.00	0.69	50
φ 15	15.7±0.5	0.35	7.50	0.69	50
φ 16	16.7±0.5	0.35	8.00	0.69	50
φ 18	19.0±0.5	0.40	9.00	0.80	50
φ 20	21.4±0.5	0.40	10.00	0.80	50
φ 22	23.4±0.6	0.45	11.00	0.80	50
φ 25	26.5±0.8	0.45	12.50	0.90	50
φ 28	29.5±0.8	0.45	14.00	0.90	50
φ 30	31.5±0.8	0.45	15.00	0.90	50
φ 35	36.5±0.8	0.50	17.50	0.90	50
φ 40	42.0±0.8	0.50	20.00	1.00	50
φ 50	52.0±0.8	0.50	25.00	1.00	50
φ 60	62.0±1.0	0.50	30.00	1.00	30
φ 70	72.0±1.0	0.50	35.00	1.20	30
φ 80	82.0±1.0	0.55	40.00	1.20	30
φ 100	102.0±1.0	0.55	50.00	1.30	30
φ 120	121.0±1.0	0.55	60.00	1.30	15
φ 150	151.0±1.0	0.55	75.00	1.30	15

Special sizes, cut pieces are available upon request.