



DBRS-135G (2X)(3X)(4X)

Military Standard 135 °C (2X) (3X) (4X) Flame Retardant Heat Shrink Tubing



Description

135 ° C (2X) flame retardant heat shrinkable tube, made of radiation cross-linked polyolefin, has excellent physicochemical and electrical properties. Typical applications include insulation of electrical connections, wire splices or terminals, rust and corrosion resistance for the soldered connections or joints, mechanical and wiring harness protection in electronics, communications, automotive, marine, aircraft manufacturing and other fields

Features

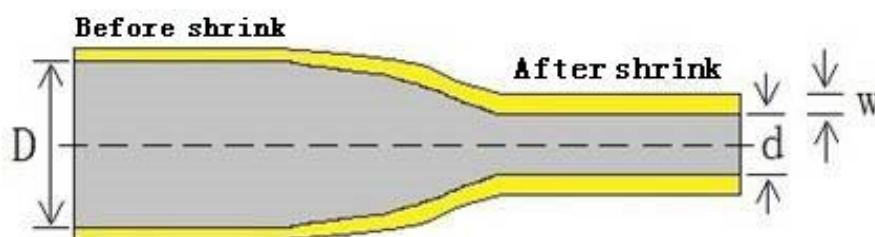
- Meets UL 224, CAN / CSA C22.2 NO198.1 -99
- Heat shrink ratio: 2:1, 3:1, 4:1
- Halogen-free, low-smoke emission , non-toxic , flexible , flame retardant , swiftly shrinking
- Min shrink temperature: 70 °C
- Min full recovery temperature: 120 °C
- Continuous operating temperature: -55 °C~ 125°C
- Environmental standards: RoHS, IPC/JEDEC C-J-STD-709 Class H material
- Standard colors: Black, White, Red , Yellow ,Green, Blue。 More colors are available upon request.



Technical Performance

Properties	Typical Data	Test Method
Tensile strength	$\geq 10.4\text{MPa}$	ASTM D 2671
Elongation	$\geq 200\%$	ASTM D 2671
Tensile strength after heat aging	$\geq 7.3\text{MPa}$	$175^{\circ}\text{C}\times 168\text{h}$
Elongation after heat aging	$\geq 100\%$	$175^{\circ}\text{C}\times 168\text{h}$
Longitudinal change	$-5\% \sim +5\%$	ASTM D 2671
Flammability	VW-1	ASTM D 2671 C
Voltage withstand(Rated voltage 600V)	2500V, 1min, without breakdown	UL 224
Heat shock	No cracking, no dripping	UL 224 , $250^{\circ}\text{C}\times 4\text{h}$
Dielectric strength	$\geq 15\text{kV/mm}$	ASTM D 149
Volume resistivity	$\geq 10^{14}\Omega\cdot\text{cm}$	ASTM D 876

Structure





Dimensions (2:1)

Size(mm)	As supplied D(mm)	After full recovered (mm)		Standard Package (M/Roll)
		Inner diameter d	Wall thickness w	
φ0.6/0.40	0.9±0.2	≤0.40	0.33±0.10	200
φ0.8/0.50	1.1±0.2	≤0.50	0.33±0.10	200
φ1.0/0.65	1.5±0.2	≤0.65	0.36±0.10	200
φ1.5/0.85	2.0±0.2	≤0.85	0.36±0.10	200
φ2.0/1.00	2.5±0.2	≤1.00	0.45±0.10	200
φ2.5/1.30	3.0±0.2	≤1.30	0.45±0.10	200
φ3.0/1.50	3.5±0.2	≤1.50	0.45±0.10	200
φ3.5/1.80	4.0±0.2	≤1.80	0.45±0.10	200
φ4.0/2.00	4.5±0.2	≤2.00	0.45±0.10	200
φ4.5/2.30	5.0±0.2	≤2.30	0.45±0.10	100
φ5.0/2.50	5.5±0.2	≤2.50	0.56±0.10	100
φ5.5/2.75	6.0±0.2	≤2.75	0.56±0.10	100
φ6.0/3.00	6.5±0.2	≤3.00	0.56±0.10	100
φ7.0/3.50	7.5±0.3	≤3.50	0.56±0.10	100
φ8.0/4.00	8.5±0.3	≤4.00	0.56±0.10	100
φ9.0/4.50	9.5±0.3	≤4.50	0.56±0.10	100
φ10/5.00	10.5±0.3	≤5.00	0.56±0.10	100
φ11/5.50	11.5±0.3	≤5.50	0.56±0.10	100
φ12/6.00	12.5±0.3	≤6.00	0.56±0.10	100
φ13/6.50	13.5±0.3	≤6.50	0.70±0.10	100
φ14/7.00	14.5±0.3	≤7.00	0.70±0.10	100
φ15/7.50	15.5±0.4	≤7.50	0.70±0.10	100
φ16/8.00	16.5±0.4	≤8.00	0.70±0.10	100
φ17/8.50	17.5±0.4	≤8.50	0.70±0.10	100
φ18/9.00	19.0±0.5	≤9.00	0.70±0.10	100
φ20/10.0	22.0±0.5	≤10.0	0.80±0.15	100
φ22/11.0	24.0±0.5	≤11.0	0.80±0.15	100



φ25/12.5	26.0±0.5	≤12.5	0.90±0.15	50
φ28/14.0	29.0±0.5	≤14.0	0.90±0.15	50
φ30/15.0	31.5±1.0	≤15.0	1.00±0.15	50
φ35/17.5	36.5±1.0	≤17.5	1.00±0.15	50
φ40/20.0	41.5±1.0	≤20.0	1.00±0.15	50
Φ45/22.5	≥45.0	≤22.5	1.00±0.15	50
φ50/25.0	≥50.0	≤25.0	1.10±0.15	25
φ60/30.0	≥60.0	≤30.0	1.20±0.15	25
φ70/35.0	≥70.0	≤35.0	1.30±0.20	25
φ80/40.0	≥80.0	≤40.0	1.30±0.20	25
φ90/45.0	≥90.0	≤45.0	1.30±0.20	25
φ100/50.0	≥100.0	≤50.0	1.30±0.20	25
φ120/60.0	≥120.0	≤60.0	1.30±0.20	25
φ150/75.0	≥150.0	≤75.0	1.30±0.20	25
φ180/90.0	≥180.0	≤90.0	1.30±0.20	25

Dimensions (3:1)

Size(mm)	As supplied D (mm)	After full recovered (mm)		Standard Package (M/Roll)
		Inner diameter d	Wall thickness w	
φ1.5/0.5	≥1.5	≤0.50	0.45±0.10	200
Φ3.0/1.0	≥3.0	≤1.00	0.55±0.10	200
Φ4.5/1.5	≥4.5	≤1.50	0.60±0.10	100
Φ6.0/2.0	≥6.0	≤2.00	0.65±0.10	100
Φ9.0/3.0	≥9.0	≤3.00	0.75±0.15	50
Φ12/4	≥12.0	≤4.00	0.75±0.15	50
Φ15/5	≥15.0	≤5.00	0.80±0.15	50
Φ18/6	≥18.0	≤6.00	0.85±0.15	50
Φ24/8	≥24.0	≤8.00	1.00±0.20	25
Φ30/10	≥30.0	≤10.0	1.15±0.20	25
Φ39/13	≥39.0	≤13.0	1.50±0.20	25
Φ50/16	≥50.0	≤16.0	2.50±0.20	25



Φ60/20	≥60.0	≤20.0	2.60±0.20	25
Φ70/23	≥70.0	≤23.0	2.60±0.20	25
Φ80/26	≥80.0	≤26.0	2.60±0.20	25
Φ90/30	≥90.0	≤30.0	2.60±0.20	25
Φ100/33	≥100.0	≤33.0	2.60±0.20	25

Dimensions (4:1)

Size(mm)	As supplied (mm)	After full recovered (mm)		Standard Package (M/Roll)
		Inner diameter d	Wall thickness w	
Φ4.0/1.0	≥4.1	≤1.0	0.70±0.10	100
Φ6.0/1.5	≥6.1	≤1.5	0.78±0.10	100
Φ8.0/2.0	≥8.1	≤2.0	0.80±0.15	100
Φ10/2.5	≥10.1	≤2.5	0.85±0.15	100
Φ12/3	≥12.1	≤3.0	0.90±0.15	100
Φ16/4	≥16.1	≤4.0	1.00±0.20	100
Φ19.1/4.6	≥19.2	≤4.7	1.20±0.20	100
Φ25.4/6.5	≥25.5	≤6.3	1.25±0.20	50
Φ30/7.5	≥30.1	≤7.5	1.25±0.20	50
Φ38.1/9.5	≥38.2	≤9.5	1.30±0.20	50
Φ51/13	≥51.1	≤12.7	1.35±0.20	25

Note: non standard dimensions and packages are also available on request