

DW (3:1, 4:1)**Dual wall, high-shrink-ratio, adhesive-lined flexible polyolefin tubing****■ Application**

DW (3:1, 4:1) is a flexible, flame-retardant, dual wall, high-shrink-ratio, irradiated heat-shrinkable tubing manufactured by co-extrusion of polyolefin and hot-melt adhesive. Inner is hot-melt adhesive with good stickness and outer is flexible, irradiated cross-linked polyolefin. It is widely used to environmentally seal and protect interconnections, joints and components from fluids, moisture and corrosion. High shrink ratio allows for connector-to-cable sealing and makes it possible to repair most damaged cable jackets without removing connectors.

■ Features/Benefits

- Shrink ratio: 3:1, 4:1.
- Environmentally seals and protects components, joints and interconnections from fluids, moisture and corrosion.
- Good mechanical, electrical and chemical properties.
- Adhesive has good stickness and bonds to a wide variety of plastics, rubbers and metals.
- Conform to RoHS and Sony-ss00259 environmental directive.

■ Operating Temperature Range

- Operating temperature range: -55°C~110°C
- Minimum shrink temperature: 80°C
- Minimum full recovery temperature: 110°C

■ Specifications/Standards

UL224 125°C 600V

AMS-DTL-23053/4 class3

**■ Specification values**

	Property	Requirement	Test method	Typical value
Physical:	Tensile strength	9.0MPa min.	ASTM D 638	≥12MPa
	Elongation	200% min.	ASTM D 638	≥400%
	Heat shock	No cracking, dripping or flowing of outer wall	ASTM D 2671	Pass
	Low temperature flexibility	No cracking	ASTM D 2671	Pass
	Aging 158°C,168hrs			
	Tensile strength after aging	70% of original min.	ASTM D 638	≥90%
	Elongation after aging	100% min.	ASTM D 638	≥300%
Electrical:	Dielectric voltage withstand	2500V, 60sec no breakdown	ASTM D 2671	Pass
	Volume resistivity	10 ¹⁴ Ω·cm min.	ASTM D 876	≥10 ¹⁴ Ω·cm
Chemical:	Copper corrosion 158°C,168hrs	No corrosion	ASTM D 2671	Pass
	Flammability	ALL TUBING FLAME TEST	UL224	Pass

■ Product sizes

Size (inch/mm)	As supplied (mm)		After recovery (mm)			Standard length (m/length, m/spool)
	Inside diameter (min.)	Wall thickness* (nominal)	Inside diameter (max.)	Wall thickness* (nominal)	Adhesive wall thickness (nominal)	
3:1						
1/8 (3/1)	3.0	0.35	1.0	1.00±0.28	0.50	1.2/200
3/16 (4.8/1.6)	4.8	0.35	1.6	1.00±0.28	0.50	1.2/100
1/4 (6/2)	6.0	0.4	2.0	1.00±0.28	0.50	1.2/100
3/8 (9/3)	9.0	0.5	3.0	1.40±0.28	0.60	1.2
1/2 (12/4)	12.0	0.6	4.0	1.78±0.38	0.76	1.2
3/4 (18/6)	18.0	0.7	6.0	2.25±0.55	0.76	1.2
1 (24/8)	24.0	0.8	8.0	2.54±0.55	1.02	1.2
1 1/4 (30/10)	30.0	0.8	10.0	2.54±0.55	1.02	1.2
1 1/2 (39/13)	39.0	0.8	13.0	2.54±0.55	1.02	1.2
4:1						
4/1	4.0	0.4	1.0	1.00±0.28	0.50	1.2
6/1.5	6.0	0.45	1.5	1.00±0.28	0.50	1.2
8/2	8.0	0.45	2.0	1.00±0.28	0.50	1.2
12/3	12.0	0.5	3.0	1.40±0.28	0.60	1.2
16/4	16.0	0.6	4.0	1.78±0.38	0.76	1.2
24/6	24.0	0.7	6.0	2.25±0.55	0.76	1.2
32/8	32.0	0.8	8.0	2.54±0.55	1.02	1.2
52/13	50.0	0.8	13.0	2.54±0.55	1.02	1.2

* Wall thickness includes adhesive wall thickness.

■ Ordering information

· **Standard color** : Black(-BK)

· **Nonstandard color** : Special colors can be available upon request.

· **Nonstandard size**

Special sizes are available upon request.

· **Standard packaging**

1.2m/length or on spools. Cut pieces are available upon request.

· **Ordering description** :

Specify product type, size and color.

