

Basic Properties

- (1) Materials : Outer: Irradiated cross-linked flexible flame-retardant polyolefin
Inner: Meltable adhesive
- (2) Shrink temperature : min. 110°C
- (3) Shrink Ratio : Radial change (W3B2): min. 60%
Radial change (W3B2(4X)): min. 80%
Longitudinal change: min. -15%
- (4) Continuous Operating Temperature : -55 to 125°C

Features

- (1) SAE-AMS/UL/CSA approved (for W3B2)
UL approved (for W3B2(4X))
- (2) Highly waterproofing with well adhesion for metals, polyolefin and PVC
- (3) Effective for waterproofing of large gap objects
- (4) Flame-retardant
- (5) Flexible
- (6) Thicker adhesive (than Sumitube™ O2B2)

Specification/Approvals

SAE-AMS-DTL-23053/4 CLASS 3 (not for all the sizes)

UL224

File No. E75077

Catalog No. Sumitube™ W3B2 or 891, Sumitube™ W3B2(4X)

Rating temperature: 125°C

Rating voltage: 600V

CSA C22.2 No. 198.1

File No. LR33298

Rating temperature: 125°C

Rating voltage: 600V

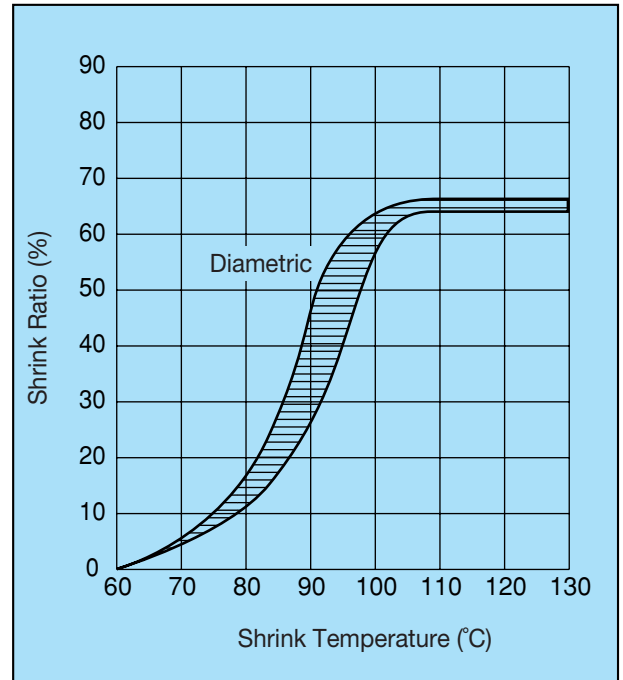
Application

- (1) Waterproof sealing for electronic devices with large gap
- (2) Encapsulation for wire branches
- (3) Insulation and protection for wire joints

Colours

Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Grey, White

Shrink Property (W3B2)



Properties [UL224]

Properties	Items	Requirements	Typical values*1
Mechanical	Tensile strength (before aging)*2	min. 10.4MPa	17.0MPa
	Tensile strength (after aging)*2	158°C x 7 days, min. 7.3MPa	11.6MPa
	Elongation (before aging)	min. 200%	520%
	Elongation (after aging)	158°C x 7 days, min. 100%	300%
	Heat shock	250°C x 4 hours, no crack	pass
	Cold bend	-30°C x 1 hour, no crack	pass
Electrical	Voltage resistance (before aging)	AC2.5kV x 60 sec., no breakdown	pass
	Voltage resistance (after aging)	158°C x 7 days, AC2.5kV x 60 sec., no breakdown	pass
	Dielectric strength (before aging)	min. AC2.5kV	24.9kV
	Dielectric strength (after aging)	158°C x 7 days, min. 50% of original and min. AC2.5kV	pass
	Volume resistivity	min. 1.0 x 10 ¹⁴ Ω·cm	2.3 x 10 ¹⁴ Ω·cm
Chemical	Corrosion against bare copper	158°C x 7 days, no corrosion after leaving under humidity 95%, 23°C x 24 hours	pass
	Flammability	Flame-retardant, pass ALL TUBING FLAME TEST	pass

*1: For reference use only

*2: Calculated by using outer cross section

Sizes

W3B2

Nominal size (inch)	Supplied ID (mm)		Recovered ID (mm)			Unit length (min.) (m)
	Inside diameter (min.)	Wall thickness (nom.)*1	Inside diameter (max.)	Wall thickness (nom)*1	Adhesive thickness (nom.)	
1/8 *2	3.20	0.35	0.60	0.95	0.35	1.22
3/16	4.80	0.45	1.50	1.10	0.60	1.22
1/4 *2	6.4	0.45	2.00	1.20	0.65	1.22
3/8	9.5	0.50	3.00	1.30	0.65	1.22
1/2 *2	12.7	0.55	4.00	1.40	0.75	1.22
3/4	19.1	0.65	8.0	1.60	0.80	1.22
1	25.4	0.75	10.2	1.90	0.80	1.22

W3B2

Nominal size (mm)	Supplied ID (mm)		Recovered ID (mm)			Unit length (min.) (m)
	Inside diameter (min.)	Wall thickness (nom.)*1	Inside diameter (max.)	Wall thickness (nom)*1	Adhesive thickness (nom.)	
19/6	19.0	0.60	6.0	1.80	0.70	1.22
24/8 *2	24.0	0.90	8.0	2.50	1.00	1.22
40/13 *2	40.0	0.90	13.0	2.50	1.00	1.22

W3B2 (4X)

Nominal size (mm)	Supplied ID (mm)		Recovered ID (mm)			Unit length (min.) (m)
	Inside diameter (min.)	Wall thickness (nom.)*1	Inside diameter (max.)	Wall thickness (nom)*1	Adhesive thickness (nom.)	
4/1	4.00	0.40	1.00	1.00	0.50	1.22
8/2	8.0	0.45	2.00	1.20	0.50	1.22
12/3	12.0	0.50	3.00	1.40	0.60	1.22
16/4	16.0	0.60	4.00	1.80	0.80	1.22
24/6	24.0	0.70	6.0	2.20	0.80	1.22
32/8	32.0	0.70	8.0	2.50	1.00	1.22

*1: Including inner adhesive

*2: SAE-AMS-DTL-23053 approved