

SUMITUBE™ W3B2 (4X)

[Dual wall, flame-retarded heat-shrinkable tubing with meltable adhesive for waterproofing of irregular-shaped objects]
W3B2 (4X): UL recognized

Catalog No. 891  RoHS directive

 Waterproofing  Flame-retarded  UL recognized  CSA recognized



A
C
A4
SUMITUBE LA
C (UL)
D
A2
SUMITUBE B
LB
F (Z)
F3 (Z)
SUMITUBE NHR2
NHR4
V (300V)
V (600V)
F2 (Z)
F4 (Z)
SUMITUBE B2
B2 (3X)
B8
SUMITUBE K
K2
SUMITUBE KH200 (TW)
SUMITUBE KH230 (TW)
B11
SUMITUBE B6
R
AN25
SUMITUBE W
O2C
SUMITUBE W3C
O2B2
W3F2
W3B2
SUMITUBE W3B2 (4X)
W5B11
SA2
SA3

Basic Properties

- Material : Outer : Irradiated cross-linked flexible flame-retarded polyolefin
: Inner : Meltable adhesive
- Shrink temperature : min. 110°C
- Shrink ratio : Radial change (W3B2 (4X)): min. 80%
: Longitudinal change: min. -15%
- Continuous operating temperature : -55 to 125°C

Features

- UL224 recognized (for W3B2 (4X))
- Watertight sealing with good adhesion to metals, polyolefin and PVC
- Flame-retarded (PBDE/PBB-free)
- Flexible
- Thicker adhesive (than SUMITUBE™ O2B2)

Specifications/Approvals

- SAE-AMS-DTL-23053/4 Class 3 (for select 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

Colors

- Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, White

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
Electrical	Cold bend	-30°C x 1 hour, no crack	Pass
	Dielectric withstand (before aging)	AC2.5kV x 60 sec., no breakdown	Pass
	Dielectric withstand (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
Chemical	Volume resistivity	min. 1.0 x 10 ¹⁴ Ω·cm	2.3 x 10 ¹⁴ Ω·cm
	Corrosion against bare copper	158°C x 7 days, no corrosion after leaving under 95% humidity, 23°C x 24 hours	Pass
	Flammability	Flame-retarded, pass All Tubing Flame Test	Pass

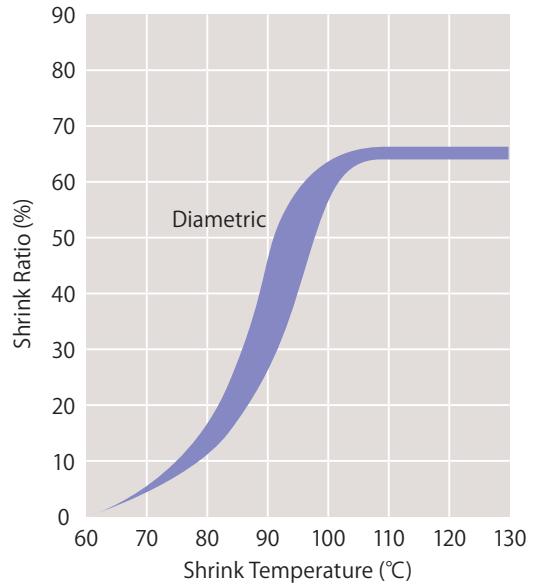
*1: For reference use only *2: Calculated by using outer cross section

Sizes

Nominal size (mm)	Supplied ID (mm)		Recovered ID (mm)			Unit length (min.) (m)
	Inside diameter (min.)	Wall thickness*3 (nom.)	Inside diameter (max.)	Wall thickness*3 (nom.)	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

*3: Including inner adhesive *4: SAE-AMS-DTL-23053

Shrink Properties



Applications

- Waterproof sealing for electronic devices with irregular shapes or profiles
- Encapsulation for wire branches
- Insulation and protection for wire joints

IRRAX™TUBE IRRAX™TAPE

A
B
F2
F2 (UL)
V2
IRRAXTUBE RP3
B8
ER2
NHR
NHR4
FE2
IRRAXTAPE VZL

IRRAX™SLEEVE

SCM2
IRRAXSLEEVE SBI 300/350
SNHM

Composite articles

SUMISEAL
SUMITUBE SA3 CAP

Processing equipment

SUMISHRINKER / HEATING GUN
