

SUMITUBE™ W3B2/W3B2 (4X)

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

Catalog No. 891  RoHS directive

 Waterproofing  Flame-retarded  UL recognized  CSA recognized



A
LA
A4
SUMITUBE C
C (UL)
D
A2

A
LA
A4
SUMITUBE C
C (UL)
D
A2

SUMITUBE B
LB
F (Z)
F3 (Z)
SUMITUBE NHR2
NHR4
R
V(300V)

SUMITUBE B
LB
F (Z)
F3 (Z)
SUMITUBE NHR2
NHR4
R
V(300V)

F2 (Z)
F4 (Z)
B2
SUMITUBE B2 (3X)
B8
V(600V)
K

F2 (Z)
F4 (Z)
B2
SUMITUBE B2 (3X)
B8
V(600V)
K

SUMITUBE K2
SUMITUBE AN25
SUMITUBE B6
SUMITUBE O2C
SUMITUBE W3C

SUMITUBE K2
SUMITUBE AN25
SUMITUBE B6
SUMITUBE O2C
SUMITUBE W3C

O2B2
W3F2
SUMITUBE W3B2
W3B2 (4X)
SA2
SA3

O2B2
W3F2
SUMITUBE W3B2
W3B2 (4X)
SA2
SA3

SUMITUBE W

SUMITUBE W

IRRAX™TUBE
IRRAX™TAPE

IRRAX™TUBE
IRRAX™TAPE

A
B
F2
F2 (UL)
V2

A
B
F2
F2 (UL)
V2

IRRAXTUBE RP3
B8
ER2
NHR
NHR4
FE2
IRRAXTAPE VZL

IRRAXTUBE RP3
B8
ER2
NHR
NHR4
FE2
IRRAXTAPE VZL

IRRAX™SLEEVE

IRRAX™SLEEVE

SCM2
SBI
IRRAXSLEEVE 300/350
SCD
SNHM

SCM2
SBI
IRRAXSLEEVE 300/350
SCD
SNHM

Composite articles

Composite articles

SUMISEAL
SA3 CAP

SUMISEAL
SA3 CAP

Processing equipment

Processing equipment

SUMISHRINKER / HEATING GUN

SUMISHRINKER / HEATING GUN

Basic Properties

- Material : Outer : Irradiated cross-linked flexible flame-retarded polyolefin
: Inner : Meltable adhesive
- Shrink temperature : min. 110°C
- Shrink ratio : Radial change (W3B2): min. 60%
: Radial change (W3B2 (4X)): min. 80%
: Longitudinal change: min. -15%
- Continuous operating temperature : -55 to 125°C

Features

- SAE-AMS/UL224/CSA recognized (for W3B2)
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

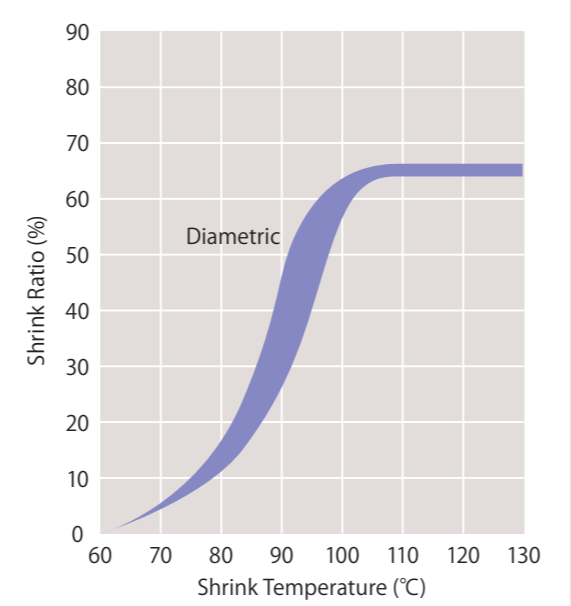
Applications

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

Colors

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

Shrink Properties



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	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

W3B2

Nominal size (inch)	Inch size					
	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.)	
1/8	*4 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	*4 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	*4 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

Nominal size (mm)	Metric size					
	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.)	
19/6	19.0	0.60	6.0	1.80	0.70	1.22
24/8	*4 24.0	0.90	8.0	2.50	1.00	1.22
40/13	*4 40.0	0.90	13.0	2.50	1.00	1.22

W3B2 (4X)

Nominal size (mm)	Metric size					
	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	*4 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