

SUMITUBE™ W3F2

[Dual wall, flame-retarded heat-shrinkable tubing with meltable adhesive for waterproofing of irregular-shaped objects] UL/CSA recognized

Catalog No. 843 ✓ RoHS directive 10 substances

Waterproofing Flame-retarded UL recognized CSA recognized



Basic Properties

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

Features

- UL/CSA recognized
- Watertight sealing with good adhesion to metals, polyolefin and PVC
- Flame-retarded (PBDE/PBB-free)
- Flexible

Specifications/Approvals

UL224

File No. E75077 Catalog No. SUMITUBE™ W3F2 or 843
Rating temperature: 125°C Rating voltage: 600V

CSA C22.2 No. 198.1

File No. LR33298 Rating temperature: 125°C
Rating voltage: 600V

Marking on Surface

CSA HS X PO MELTABLE LINER 125°C ◆SUMITOMO-K
SUMITUBE W3F2 843 125°C

Applications

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

Colors

- Black

Properties [UL224]

Properties	Items	Requirements	Typical values*1
Mechanical	Tensile strength (before aging)*2	min. 10.4MPa	12.0MPa
	Tensile strength (after aging)*2	158°C x 7 days, min. 7.3MPa	11.6MPa
	Elongation (before aging)	min. 200%	438%
	Elongation (after aging)	158°C x 7 days, min. 100%	425%
	Heat shock	250°C x 4 hours, no crack	Pass
	Cold bend	-30°C x 1 hour, 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
	Volume resistivity	min. $1.0 \times 10^{14} \Omega \cdot \text{cm}$	4.4 x 10 ¹⁴ Ω·cm
Chemical	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

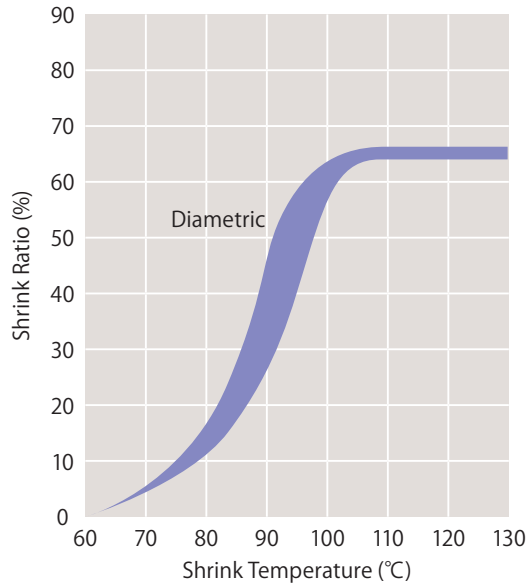
*1: For reference use only *2: Calculated by using outer cross section

Sizes

Trade (inch)	As supplied (mm)		After recovered (mm)			Unit length (min.) (m)
	Inside diameter (min.)	Wall thickness*3 (nom.)	Inside diameter (max.)	Wall thickness*3 (nom.)	Adhesive thickness (nom.)	
1/8	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	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	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

*3: Including inner adhesive

Shrink Properties



SUMITUBE™

A
C
A4
LA
C (UL)
D
A2

B
LB

F (Z)
F3 (Z)
NHR2
NHR4
V (300V)
V (600V)

F2 (Z)
F4 (Z)
B2
B2 (3X)
B8

K
K2

KH200 (TW)

KH230 (TW)

B6
R
AN25

W

O2C
W3C

O2B2
W3F2
W3B2
W3B2 (4X)
SA2
SA3

IRRAX™TUBE IRRAX™TAPE

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

IRRAX™SLEEVE

SCM2
SBI
300/350
SNHM

Composite articles

SUMISEAL
SUMITUBE SA3 CAP

Processing equipment

SUMISHRINKER / HEATING GUN