

IRRAX™ TUBE B8

[Semi-rigid heat-resistant tubing compliant with Electrical Appliance and Material Safety Law] UL recognized

Catalog No. 838, 897  RoHS directive 10 substances

 Waterproofing  Flame-retarded  UL recognized  CSA recognized



Basic Properties

- Material: Cross-linked semi-rigid flame-retarded polyolefin
- Continuous operating temperature: -55 to 125°C

Features

- Semi-rigid
- Flame-retarded (PBDE/PBB-free)

Specifications/Approvals

UL224 (for Catalog No. 838)

File No.: E75077

Operating temperature: 125°C

Voltage rating: 600V

Flammability rating: VW-1

Electrical Appliance and Material Safety Law (Japan)

(for Catalog No. 838, 897)

Registration of flammability rating (-F-)

(Registration No.: STS3-009 to STS3-016)

Marking on Surface

- ❖ VW-1 SUMITOMO IRRAX™ TUBE B8 125-F- (for Catalog No. 838)
- ❖ SUMITOMO IRRAX™ TUBE B8 -F- (for Catalog No. 897)

Applications

- Insulation and protection of electric terminations where mechanical strength is required
- Reinforcement of objects to be covered

Colors

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

Properties

Properties	Items	Requirements	Typical values*
Mechanical	Tensile strength (before aging)	min. 13.8MPa	19.0MPa
	Tensile strength (after aging)	158°C x 7 days, min. 9.7MPa	17.1MPa
	Elongation (before aging)	min. 200%	340%
	Elongation (after aging)	158°C x 7 days, min. 100%	340%
	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 breakdown (before aging)	min. AC2.5kV	15.0kV
	Dielectric breakdown (after aging)	158°C x 7 days, min. 50% of original and min. AC2.5kV	Pass
Chemical	Volume resistivity	min. $1.0 \times 10^{14} \Omega \cdot \text{cm}$	$2.3 \times 10^{16} \Omega \cdot \text{cm}$
	Corrosion against bare copper	158°C x 7 days, no corrosion after leaving under 95% humidity, 23°C x 24 hours	Pass
	Stability against copper	158°C x 7 days, elongation min. 100% after leaving under 95% humidity, 23°C x 24 hours	304%
	Flammability	Flame-retarded, pass VW-1	Pass

*: For reference use only

Sizes

Catalog No. 838			
Trade size	Inside diameter (mm)	Wall thickness (mm)	Unit length (m)
AWG24	0.55 ± 0.10	0.50 ± 0.06	500 min.
AWG22	0.65 ± 0.10	0.50 ± 0.06	500 min.
AWG20	0.80 ± 0.10	0.50 ± 0.06	500 min.
AWG19	0.90 ± 0.10	0.50 ± 0.06	500 min.
AWG18	1.00 ± 0.10	0.50 ± 0.06	250 min.
AWG17	1.15 ± 0.10	0.62 ± 0.06	250 min.
AWG16	1.30 ± 0.10	0.62 ± 0.06	250 min.
AWG15	1.45 ± 0.10	0.62 ± 0.06	200 min.
AWG14	1.65 ± 0.10	0.62 ± 0.06	200 min.
AWG13	1.80 ± 0.15	0.62 ± 0.06	200 min.
AWG12	2.10 ± 0.15	0.62 ± 0.06	400 min.
AWG11	2.30 ± 0.15	0.62 ± 0.06	400 min.
AWG10	2.60 ± 0.15	0.62 ± 0.06	400 min.
AWG 9	2.90 ± 0.15	0.62 ± 0.06	400 min.
AWG 8	3.30 ± 0.15	0.62 ± 0.06	400 min.
AWG 7	3.70 ± 0.15	0.62 ± 0.06	400 min.
AWG 6	4.10 ± 0.20	0.62 ± 0.06	200 min.
AWG 5	4.60 ± 0.20	0.62 ± 0.06	200 min.
AWG 4	5.20 ± 0.20	0.62 ± 0.06	200 min.
AWG 3	5.80 ± 0.20	0.62 ± 0.06	100 min.
AWG 2	6.5 ± 0.2	0.62 ± 0.06	100 min.
AWG 1	7.3 ± 0.3	0.62 ± 0.06	100 min.
AWG 0	8.3 ± 0.3	0.62 ± 0.06	100 min.

Catalog No. 897			
Trade size	Inside diameter (mm)	Wall thickness (mm)	Unit length (m)
1 × 0.4	1.00 ± 0.10	0.38 min.	500 min.
1.5 × 0.4	1.50 ± 0.10	0.38 min.	300 min.
2 × 0.4	2.00 ± 0.20	0.38 min.	200 min.
3 × 0.4	3.00 ± 0.20	0.38 min.	400 min.
4 × 0.4	4.00 ± 0.30	0.38 min.	400 min.
5 × 0.4	5.00 ± 0.30	0.38 min.	200 min.
6 × 0.4	6.0 ± 0.5	0.38 min.	200 min.
7 × 0.4	7.0 ± 0.5	0.38 min.	100 min.
8 × 0.4	8.0 ± 0.5	0.38 min.	100 min.
9 × 0.4	9.0 ± 0.5	0.38 min.	100 min.
10 × 0.4	10.0 ± 0.5	0.38 min.	100 min.

Longitudinal change: min. -10% (200°C x 5 minutes)

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
IRRAX™ TUBE RP3
B8
ER2
NHR
FE2
IRRAX™ TAPE VZL

IRRAX™ SLEEVE

SCM2
IRRAX™ SLEEVE SBI 300/350 SNHM

Composite articles

SUMISEAL
SUMITUBE SA3 CAP

Processing equipment

SUMISHRINKER / HEATING GUN