

SUMITUBE™

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)

B6

SUMITUBE

R

AN25

SUMITUBE

W

SUMITUBE

O2C

W3C

O2B2

W3F2

SUMITUBE

W3B2

SUMITUBE

W3B2 (4X)

SA2

SA3

IRRAX™TUBE  
IRRAX™TAPE

A

B

F2

F2 (UL)

V2

IRRAXTUBE

RP3

B8

ER2

NHR

FE2

IRRAXTAPE

VZL

IRRAX™SLEEVE

SCM2

IRRAXSLEEVE

SBI 300/350

SNHM

Composite  
articles

SUMISEAL

SUMITUBE SA3 CAP

Processing  
equipment

SUMISHRINKER / HEATING GUN

# IRRAX™TUBE F2 (UL)

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

Catalog No. 715, 845 ✓ RoHS directive 10 substances

Waterproofing

Flame-retarded

UL recognized

CSA recognized



## Basic Properties

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

## Features

- Flexible
- Flame-retarded (PBDE/PBB-free)

## Specifications/Approvals

UL224 For sizes AWG24 to AWG18 (Catalog No. 715)

File No.: E70631

Flammability rating: VW-1

UL224 For sizes bigger than AWG17 (Catalog No. 845)

File No.: E75077

Operating temperature: 125°C

Voltage rating: 600V

Flammability rating: VW-1

Electrical Appliance and Material Safety Law (Japan)

Operating temperature 125°C (provisional registration)

(Registration No.: 004CC0176)

Registration of flammability rating (-F-)

(Registration No.: F-ST53-009 to F-ST53-016)

## Marking on Surface

For sizes AWG24 to AWG18 (Catalog No. 715)

❖VW-1 SUMITOMO IRRAXTUBE F2 -F-

For sizes bigger than AWG17 (Catalog No. 845)

❖VW-1 SUMITOMO IRRAXTUBE F2 125°C -F-

## Applications

- Insulation, protection and reinforcement of terminations and joints of electric wires
- Identification and bundling of electric wires

## Colors

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

## Properties

Properties	Items	Requirements	Typical values*
Mechanical	Tensile strength (before aging)	min. 10.4MPa	13.2MPa
	Tensile strength (after aging)	158°C x 7 days, min. 7.3MPa	13.4MPa
	Elongation (before aging)	min. 200%	325%
	Elongation (after aging)	158°C x 7 days, min. 100%	350%
	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 breakdown (before aging)	min. AC2.5kV	19.1kV
	Dielectric breakdown (after aging)	158°C x 7 days, min. 50% of original and min. AC2.5kV	Pass
	Volume resistivity	min. 1.0 x 10 <sup>14</sup> Ω·cm	1.6 x 10 <sup>16</sup> 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
	Stability against copper	158°C x 7 days, elongation min. 100% after leaving under 95% humidity, 23°C x 24 hours	325%
	Flammability	Flame-retarded, pass VW-1	Pass

\*: For reference use only

## Sizes

Trade size	Inside diameter (mm)	Wall thickness (mm)	Unit length (m)	Nominal size	Inside diameter (mm)	Wall thickness (mm)	Unit length (m)
AWG24	0.55±0.10	0.50±0.06	500 min.	AWG10	2.60±0.15	0.62±0.06	400 min.
AWG22	0.65±0.10	0.50±0.06	500 min.	AWG 9	2.90±0.15	0.62±0.06	400 min.
AWG20	0.80±0.10	0.50±0.06	500 min.	AWG 8	3.30±0.15	0.62±0.06	400 min.
AWG19	0.90±0.10	0.50±0.06	500 min.	AWG 7	3.70±0.15	0.62±0.06	400 min.
AWG18	1.00±0.10	0.50±0.06	250 min.	AWG 6	4.10±0.20	0.62±0.06	200 min.
AWG17	1.15±0.10	0.62±0.06	250 min.	AWG 5	4.60±0.20	0.62±0.06	200 min.
AWG16	1.30±0.10	0.62±0.06	250 min.	AWG 4	5.20±0.20	0.62±0.06	200 min.
AWG15	1.45±0.10	0.62±0.06	200 min.	AWG 3	5.80±0.20	0.62±0.06	100 min.
AWG14	1.65±0.10	0.62±0.06	200 min.	AWG 2	6.5 ±0.2	0.62±0.06	100 min.
AWG13	1.80±0.15	0.62±0.06	200 min.	AWG 1	7.3 ±0.3	0.62±0.06	100 min.
AWG12	2.10±0.15	0.62±0.06	400 min.	AWG 0	8.3 ±0.3	0.62±0.06	100 min.
AWG11	2.30±0.15	0.62±0.06	400 min.				

Longitudinal change: min. -20% (125°C x 1 minute)