

SUMITUBE™ V (600V)

[105°C rating, transparent flame-retarded heat-shrinkable tubing] UL/CSA recognized

Catalog No. 835 ✓ RoHS directive 10 substances

Waterproofing Flame-retarded UL recognized CSA recognized



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

Basic Properties

- Material : Flexible flame-retarded polyvinyl chloride
- Shrink ratio : Radial change: min. 50%
Longitudinal change: min. -30%
- Continuous operating temperature : -30 to 105°C

Features

- UL (cULus) recognized
- Flame-retarded
- Transparent

Specifications/Approvals

UL224

File No. E48762 Catalog No. 835 Rating temperature: 105°C
Rating voltage: 600V Flammability: VW-1

CSA C22.2 No. 198.1

File No. LR33298 Rating temperature: 105°C
Rating voltage: 600V Flammability: VW-1

Electrical Appliance and Material Safety Law (Japan)

Flammability rating (-F-) test registration No.: F-STS3-001 to F-STS3-008

Marking on Surface

105°C VW-1 SUMITOMO-K SUMITUBE V CAT 835 CSA 105°C VW-1 -F-

Applications

- Insulation, protection and reinforcement for termination and joints of electric wire
- Fixing and protection for cable markers
- Insulation and protection of resistors and capacitors

Properties [UL224]

Properties	Items	Requirements	Typical values*1
Mechanical	Tensile strength (before aging)	min. 10.4MPa	27.7MPa
	Tensile strength (after aging)	136°C x 7 days, min. 7.3MPa	29.0MPa
	Elongation (before aging)	min. 100%	340%
	Elongation (after aging)	136°C x 7 days, min. 100%	320%
	Deformation	131°C x 1 hour, max. 35%	27%
	Heat shock	180°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)	136°C x 7 days, AC2.5kV x 60 sec., no breakdown	Pass
	Dielectric breakdown (before aging)	min. AC2.5kV	17.5kV
	Dielectric breakdown (after aging)	136°C x 7 days, min. 50% of original and min. AC2.5kV	Pass
Chemical	Volume resistivity	min. $1.0 \times 10^{10} \Omega \cdot \text{cm}$	$5.3 \times 10^{12} \Omega \cdot \text{cm}$
	Corrosion against bare copper	136°C x 7 days, no corrosion after leaving under 95% humidity, 23°C x 24 hours	Pass
	Stability against copper	136°C x 7 days, elongation min. 70% after leaving under 95% humidity, 23°C x 24 hours	300%
	Flammability	Flame-retarded, pass VW-1	Pass

*1: For reference use only

Sizes

Trade size (inch)	As supplied (mm)		After recovered (mm)		Unit length (min.) (m)
	Inside diameter*2 (min.)	Wall thickness (nom.)	Inside diameter (max.)	Wall thickness (nom.)	
3/64	1.20	0.20	0.60	0.44	100
1/16	1.60	0.20	0.80	0.44	100
3/32	2.40	0.25	1.20	0.56	100
1/8	3.20	0.25	1.60	0.56	100
3/16	4.80	0.25	2.40	0.56	100
1/4	6.4	0.25	3.20	0.56	50
3/8	9.5	0.25	4.80	0.56	50
1/2	12.7	0.25	6.4	0.56	50
3/4	19.1	0.30	9.5	0.69	50
1	25.4	0.35	12.7	0.77	50

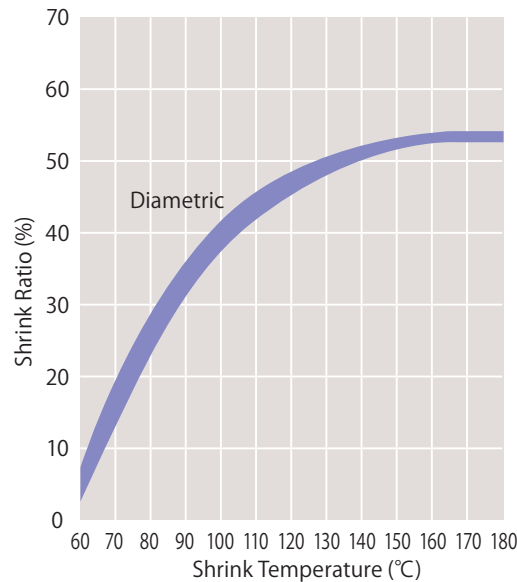
*2: Actual inside diameter is 20% larger than above

Tube storage conditions and natural shrinkage of tubes

Due to the characteristics of its raw material, polyvinyl chloride, SUMITUBE V tends to start shrinking when heated above 40°C. Store this product in a cool dark place away from direct sunlight.

Note: SUMITUBE V may crack if heated locally with high heat. Determine the optimal tube heating conditions while checking how the tube shrinks.

Shrink Properties



Colors

- Clear