


SUMITUBE™ V (300V)

[Clear, flame-retarded heat-shrinkable tubing]

Catalog No. 836  RoHS directive 10 substances

 Waterproofing  Flame-retarded  UL recognized  CSA recognized



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 (UL/CULus) recognized
- Flame-retarded
- Transparent colors

Specifications/Approvals

UL224 File No. E48762 Catalog No. 836
 Rating temperature: 105°C Rating voltage: 300V Flammability: VW-1
 Electrical Appliance and Material Safety Law (Japan)
 Flammability rating (-F-) test registration No.: F-ST53-001 to F-ST53-008

Marking on Surface

- SUMITOMO-K SUMITUBE V 105°C VW-1 CAT 836 -F-

Applications

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

Colors

- Clear

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	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
	Volume resistivity	min. 1.0 x 10 ¹⁰ Ω·cm	5.3 x 10 ¹² Ω·cm
Chemical	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. 100% after leaving under 95% humidity, 23°C x 24 hours	300%
	Flammability	Flame-retarded, pass VW-1	Pass

*1: For reference use only

Sizes

Inch size (Catalog No. 818)

Trade size (inch)	As supplied (mm)		After recovered (mm)		Unit length (min.) (m)
	Inside diameter (min.) ^{*2}	Wall thickness (nom.)	Inside diameter (max.)	Wall thickness (min.)	
3/64	1.20	0.10	0.60	0.26	100
1/16	1.60	0.10	0.80	0.33	100
3/32	2.40	0.12	1.20	0.33	100
1/8	3.20	0.12	1.60	0.33	100
3/16	4.80	0.12	2.40	0.33	100
1/4	6.4	0.15	3.20	0.44	50
3/8	9.5	0.15	4.80	0.44	50
1/2	12.7	0.19	6.4	0.56	50
3/4	19.1	0.23	9.5	0.69	50
1	25.4	0.25	12.7	0.77	50

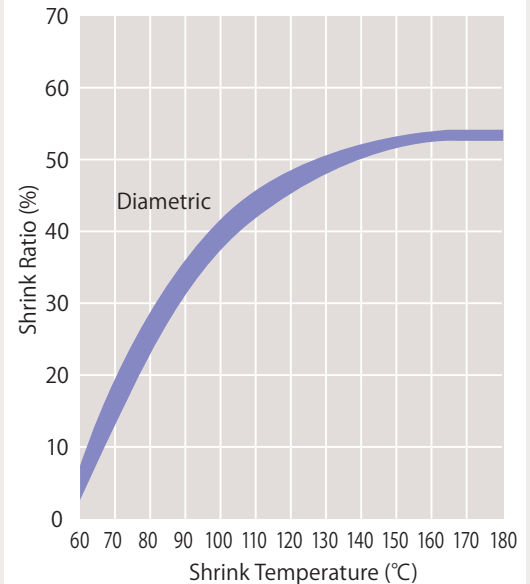
*2: Actual inside diameter is 20% larger than above

Tube storage conditions and natural shrinkage of tubes

Heat-shrinkable tubes will not shrink prematurely as long as they are stored at a temperature lower than the shrinkage start temperature. However, we recommend that you store them in a cool dark place. Avoid exposing them to direct sunlight.

SUMITUBE V tends to start shrinking at near 40°C due to the characteristics of the raw material, polyvinyl chloride. Store this tube with special care.

Shrink Properties



Composite articles

SUMISEAL
SUMITUBE SA3 CAP

Processing equipment

SUMISHRINKER / HEATING GUN

Metric size (Catalog No. 823)

Nominal size (mm)	As supplied (mm)		After recovered (mm)		Unit length (min.) (m)
	Inside diameter (min.) ^{*2}	Wall thickness (nom.)	Inside diameter (max.)	Wall thickness (min.)	
1.5 × 0.15	1.50	0.15	0.75	0.33	100
2 × 0.15	2.00	0.15	1.00	0.33	100
2.5 × 0.15	2.50	0.15	1.25	0.33	100
3 × 0.15	3.00	0.15	1.50	0.33	100
3.5 × 0.15	3.50	0.15	1.75	0.33	100
4 × 0.15	4.00	0.15	2.00	0.33	100
5 × 0.15	5.00	0.15	2.50	0.44	50
6 × 0.15	6.0	0.15	3.00	0.44	50
7 × 0.15	7.0	0.15	3.50	0.44	50
8 × 0.15	8.0	0.15	4.00	0.44	50
9 × 0.2	9.0	0.20	4.50	0.56	50
10 × 0.2	10.0	0.20	5.00	0.56	50
11 × 0.2	11.0	0.20	5.50	0.56	50
12 × 0.2	12.0	0.20	6.00	0.56	50
13 × 0.25	13.0	0.25	6.5	0.69	50
14 × 0.25	14.0	0.25	7.0	0.69	50
15 × 0.25	15.0	0.25	7.5	0.69	50
16 × 0.25	16.0	0.25	8.0	0.69	50
18 × 0.25	18.0	0.25	9.0	0.77	50
20 × 0.25	20.0	0.25	10.0	0.77	50
22 × 0.25	22.0	0.25	11.0	0.77	50
25 × 0.25	25.0	0.25	12.5	0.77	50