

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-

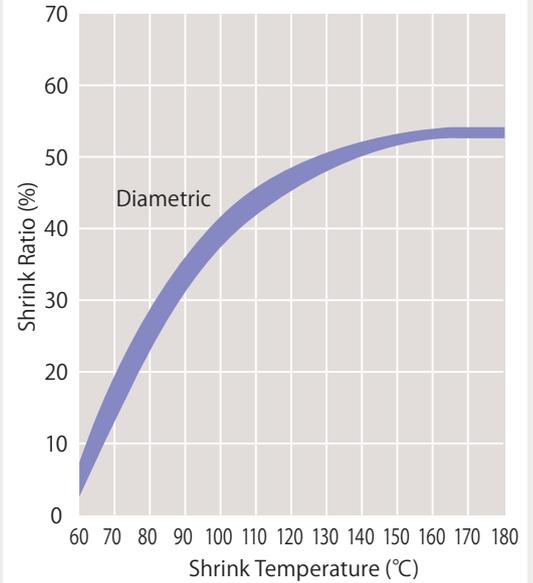
Applications

- 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

Shrink Properties



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 |
| Chemical | Volume resistivity | min. 1.0 x 10 ¹⁰ Ω·cm | 5.3 x 10 ¹² Ω·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. 100% after leaving under 95% humidity, 23°C x 24 hours | 300% |
| Flammability | 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 (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 |

| 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 x 0.15 | 1.50 | 0.15 | 0.75 | 0.33 | 100 |
| 2 x 0.15 | 2.00 | 0.15 | 1.00 | 0.33 | 100 |
| 2.5 x 0.15 | 2.50 | 0.15 | 1.25 | 0.33 | 100 |
| 3 x 0.15 | 3.00 | 0.15 | 1.50 | 0.33 | 100 |
| 3.5 x 0.15 | 3.50 | 0.15 | 1.75 | 0.33 | 100 |
| 4 x 0.15 | 4.00 | 0.15 | 2.00 | 0.33 | 100 |
| 5 x 0.15 | 5.00 | 0.15 | 2.50 | 0.44 | 50 |
| 6 x 0.15 | 6.0 | 0.15 | 3.00 | 0.44 | 50 |
| 7 x 0.15 | 7.0 | 0.15 | 3.50 | 0.44 | 50 |
| 8 x 0.15 | 8.0 | 0.15 | 4.00 | 0.44 | 50 |
| 9 x 0.2 | 9.0 | 0.20 | 4.50 | 0.56 | 50 |
| 10 x 0.2 | 10.0 | 0.20 | 5.00 | 0.56 | 50 |
| 11 x 0.2 | 11.0 | 0.20 | 5.50 | 0.56 | 50 |
| 12 x 0.2 | 12.0 | 0.20 | 6.00 | 0.56 | 50 |
| 13 x 0.25 | 13.0 | 0.25 | 6.5 | 0.69 | 50 |
| 14 x 0.25 | 14.0 | 0.25 | 7.0 | 0.69 | 50 |
| 15 x 0.25 | 15.0 | 0.25 | 7.5 | 0.69 | 50 |
| 16 x 0.25 | 16.0 | 0.25 | 8.0 | 0.69 | 50 |
| 18 x 0.25 | 18.0 | 0.25 | 9.0 | 0.77 | 50 |
| 20 x 0.25 | 20.0 | 0.25 | 10.0 | 0.77 | 50 |
| 22 x 0.25 | 22.0 | 0.25 | 11.0 | 0.77 | 50 |
| 25 x 0.25 | 25.0 | 0.25 | 12.5 | 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.

- SUMITUBE
 - A
 - C
 - A4
 - LA
 - C (UL)
 - D
 - A2
- SUMITUBE
 - B
 - LB
- SUMITUBE
 - F (Z)
 - F3 (Z)
 - NHR2
 - NHR4
 - V (300V)
 - V (600V)
- SUMITUBE
 - F2 (Z)
 - F4 (Z)
 - B2
 - B2 (3X)
 - B8
- SUMITUBE
 - K
 - K2
- SUMITUBE
 - KH200 (TW)
 - KH230 (TW)
- SUMITUBE
 - B6
 - R
 - AN25
- SUMITUBE
 - W
- SUMITUBE
 - O2C
 - W3C
- SUMITUBE
 - O2B2
 - W3F2
 - W3B2
 - W3B2 (4X)
 - SA2
 - SA3
- IRRAX™TUBE
- IRRAX™TAPE
 - A
 - B
 - F2
 - F2 (UL)
 - V2
 - RP3
 - B8
 - ER2
 - NHR
 - FE2
- IRRAX™SLEEVE
 - SCM2
 - SBI 300/350
 - SNHM
- Composite articles
 - SUMISEAL
 - SUMITUBE SA3 CAP
- Processing equipment
 - SUMISHRINKER / HEATING GUN