SUMITUBE™ V (600V)

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

Catalog No. 835 ✓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℃

Features

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

Specifications/Approvals

UL224
File No. E48762 Catalog No. 835 Rating temperature: 105℃
Rating voltage: 600V Flammability: VW-1

CSA C22.2 No. 198.1
File No. LR33298 Rating temperature: 105℃
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

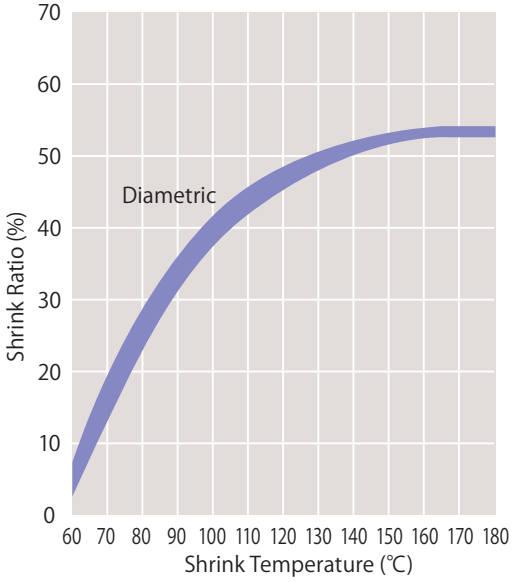
Marking on Surface

105℃ VW-1 SUMITOMO-K SUMITUBE V CAT 835 CSA 105℃ 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

Shrink Properties



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℃ x 7 days, min. 7.3MPa	29.0MPa
	Elongation (before aging)	min. 100%	340%
	Elongation (after aging)	136℃ x 7 days, min. 100%	320%
	Deformation	131℃ x 1 hour, max. 35%	27%
	Heat shock	180℃ x 4 hours, no crack	Pass
	Cold bend	-30℃ x 1 hour, no crack	Pass
Electrical	Dielectric withstand (before aging)	AC2.5kV x 60 sec., no breakdown	Pass
	Dielectric withstand (after aging)	136℃ 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℃ x 7 days, min. 50% of original and min. AC2.5kV	Pass
	Volume resistivity	min. $1.0 \times 10^{10}\Omega$•cm	$5.3 \times 10^{12}\Omega$•cm
Chemical	Corrosion against bare copper	136℃ x 7 days, no corrosion after leaving under 95% humidity, 23℃ x 24 hours	Pass
	Stability against copper	136℃ x 7 days, elongation min. 70% after leaving under 95% humidity, 23℃ 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℃. 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.