

Basic Properties

- (1) Materials : Flexible flame-retardant polyvinylchloride
- (2) Shrink Ratio : Radial change: min. 50%
: Longitudinal change: min. -30%
- (3) Continuous Operating Temperature : -30 to 105°C

Features

- (1) UL224 approved
- (2) Flame-retardant
- (3) Transparent colours

Specification/Approvals

UL224

- File No. E48762
- Catalog No. 818 (for inch size), 823 (for metric size)
- Rating temperature: 105°C
- Rating voltage: 300V
- Flammability: VW-1

Electrical Appliance and Material Safety Law (Japan)
Flammability rating (-F-) test registration No.: F-STS3-001 - F-STS3-008

Marking on the surface

◆SUMITOMO SUMITUBE V 105°C VW-1 CAT XXX -F-
(XXX shows catalog No.)

Application

- (1) Insulation, protection and reinforcement for termination and joints of electric wire
- (2) Fixing and protection for cable labels
- (3) Insulation and protection for resistor and condenser

Colours

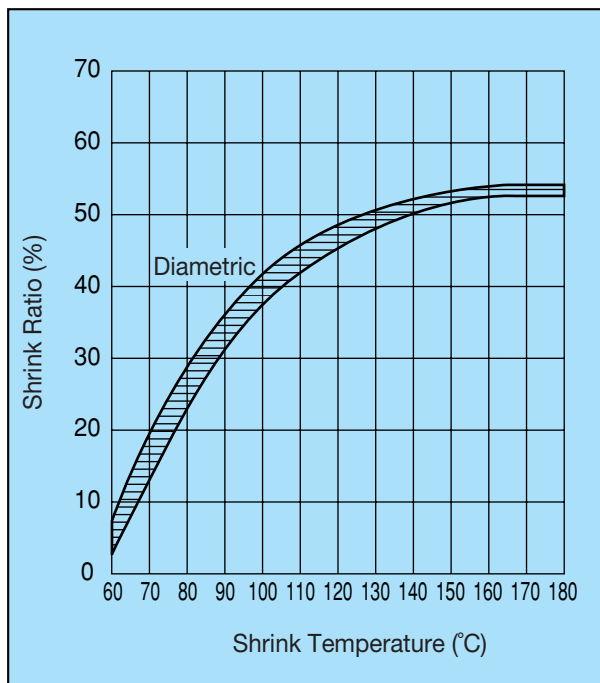
Clear

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	Cold bend	-30°C x 1 hour, no crack	pass
	Voltage resistance (before aging)	AC2.5kV x 60 sec. no breakdown	pass
	Voltage resistance (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 humidity 95%, 23°C x 24 hours	pass
	Stability against copper	136°C x 7 days, elongation min. 100% after leaving under humidity 95%, 23°C x 24 hours	300%
	Flammability	Flame-retardant, pass VW-1	pass

*1: For reference use only

Shrink Property



Sizes

Inch size (catalog No. 818)

Nominal size (inch)	Supplied ID (mm)		Recovered ID (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

Metric size (catalog No. 823)

Nominal size (mm)	Supplied ID (mm)		Recovered ID (mm)		Unit length (min.) (m)
	Inside diameter (min.)* ³	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	6.0	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, 3: Actual inside diameter is 20% bigger than above