Sumitube F32

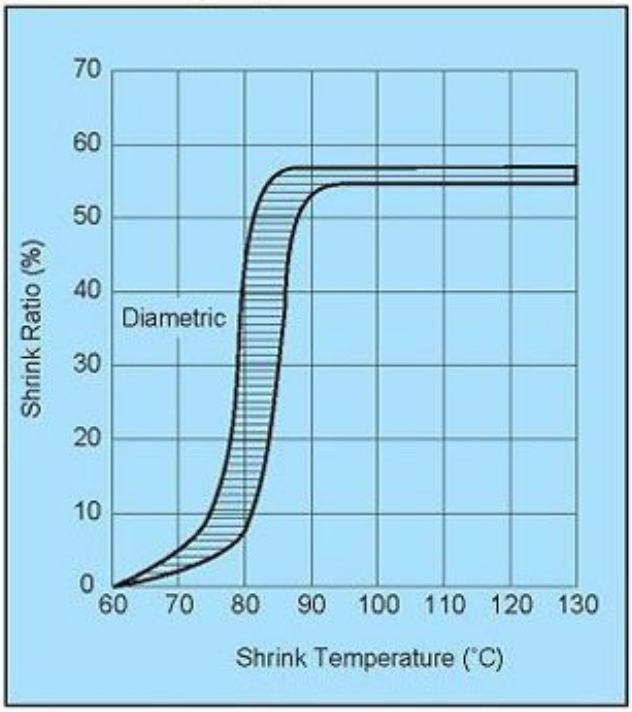
[125°C rating, flame-retardant heat shrinkable tubing
UL/CSA approved]

✓RoHS directive

Basic Properties

(1) Materials : Irradiated cross-linked flexible flame-retardant polyolefin
(2) Shrink temperature : min. 90°C
(3) Shrink Ratio : Radial change: min. 50%
: Longitudinal change: -5 ± 5%
(4) Continuous Operating Temperature : -55 to 125°C

Shrink Property



Features

(1) UL/CSA approved
(2) Flame Retardant
(3) Flexible

Specification/Approvals

UL224
File No. E48762
Catalog No. Sumitube F32
Rating temperature: 125°C
Rating voltage: 600V
Flammability: VW-1

CSA C22.2
File No. LR33298
Rating temperature: 125°C
Rating voltage: 600V
Flammability: VW-1

Flammability rating (-F-) test registration No.: F-SPE3-001~F-SPE3-004

Marking on the surface

SUMI - PAC SUMITUBE F32 CSA 125°C VW-1-F-(Sixe)

Application

(1) Insulation, protection and reinforcement for termination and joints of electric wire
(2) Colour identification and bundling for electric wires
(3) Insulation and protection for resistor and condenser

Colours

Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Grey, White

Properties [UL224]

Properties	Items	Requirements	Typical values*1
Mechanical	Tensile strength (before aging)	min. 10.4MPa	13.2MPa
	Tensile strength (after aging)	158°C x 7 days, min. 7.3MPa	13.4MPa
	Elongation (before aging)	min. 200%	325%
	Elongation (after aging)	158°C x 7 days, min. 100%	350%
	Heat shock	250°C x 4 hours, no crack	pass
	Cold bend	-30°C x 1 hour, no crack	pass
Electrical	Voltage resistance(before aging)	AC2.5kV x 60 sec. no breakdown	pass
	Voltage resistance(after aging)	158°C x 7 days, AC2.5kV x 60 sec., no breakdown	pass
	Dielectric breakdown (before aging)	min. AC2.5kV	19.1kV
	Dielectric breakdown (after aging)	158°C x 7 days, min. 50% of original and min. AC2.5kV	pass
	Volume resistivity	min. $1.0 \times 10^{14}\Omega \cdot cm$	$1.6 \times 10^{16}\Omega \cdot cm$
Chemical	Corrosion against bare copper	158°C x 7 days, no corrosion after leaving under humidity 95%, 23°C x 24 hours	pass
	Stability against copper	158°C x 7 days, elongation min. 100% after leaving under humidity 95%, 23°C x 24 hours	325%
	Flammability	Flame-retardant, pass VW-1	pass

*1: For reference use only

Sizes

(Inch Sizes)	Supplied ID(mm)		Recovered ID(mm)		Unit Length(m)
	Inside diameter	Well thickness(nom)	Inside diameter(max)	Wall thickness(min.)	
3/64	1.6 ± 0.2	0.20	0.60	0.33	200
1/16	2.1 ± 0.2	0.20	0.80	0.36	200
3/32	2.7 ± 0.2	0.25	1.20	0.44	200
1/8	3.6 ± 0.2	0.25	1.60	0.44	100
3/16	5.2 ± 0.3	0.25	2.40	0.44	100
1/4	6.8 ± 0.4	0.30	3.20	0.56	50
3/8	10.0 ± 0.4	0.30	4.80	0.56	50
1/2	13.2 ± 0.5	0.30	6.40	0.56	50
3/4	20.0 ± 0.6	0.35	9.50	0.69	50
1	26.6 ± 0.8	0.40	12.70	0.77	50

(METRIC SIZE)

1 x 0.20	1.4 ± 0.2	0.20	0.50	0.33	200
1.5 x 0.20	2.0 ± 0.2	0.20	0.75	0.36	200
2 x 0.20	2.5 ± 0.2	0.20	1.00	0.44	200
2.5 x 0.25	3.0 ± 0.2	0.25	1.25	0.44	200
3 x 0.25	3.5 ± 0.3	0.25	1.50	0.44	200
3.5 x 0.25	4.0 ± 0.3	0.25	1.75	0.44	200
4 x 0.25	4.5 ± 0.3	0.25	2.00	0.44	200
5 x 0.25	5.4 ± 0.3	0.25	2.50	0.56	100
6 x 0.25	6.4 ± 0.4	0.25	3.00	0.56	100
7 x 0.25	7.4 ± 0.4	0.25	3.50	0.56	50
8 x 0.25	8.4 ± 0.4	0.25	4.00	0.56	50
9 x 0.25	9.4 ± 0.4	0.25	4.50	0.56	50
10 x 0.25	10.4 ± 0.4	0.25	5.00	0.56	50
11 x 0.25	11.4 ± 0.4	0.25	5.50	0.56	50
12 x 0.25	12.4 ± 0.4	0.25	6.00	0.56	50
13 x 0.30	13.5 ± 0.4	0.30	6.50	0.69	50
14 x 0.30	14.5 ± 0.4	0.30	7.00	0.69	50
15 x 0.30	15.5 ± 0.5	0.30	7.50	0.69	50
16 x 0.30	16.8 ± 0.5	0.30	8.00	0.69	50
18 x 0.35	18.7 ± 0.5	0.35	9.00	0.77	50
20 x 0.35	21.2 ± 0.6	0.35	10.00	0.77	50
22 x 0.40	23.2 ± 0.6	0.40	11.00	0.77	50
25 x 0.40	26.1 ± 0.8	0.40	12.50	0.87	50
28 x 0.50	29.0 ± 1.0	0.50	14.00	0.87	50
30 x 0.50	32.0 ± 1.0	0.50	15.00	0.87	50