

SUMITUBE™ NHR2

[125°C rating, halogen-free, flame-retarded, heat-resistant tubing] UL/cULus recognized

Catalog No. 717 ✓ RoHS directive 10 substances

Waterproofing Flame-retarded UL recognized CSA recognized



SUMITUBE	A
SUMITUBE	C
SUMITUBE	A4
SUMITUBE	LA
SUMITUBE	C (UL)
SUMITUBE	D
SUMITUBE	A2
SUMITUBE	B
SUMITUBE	LB
SUMITUBE	F (Z)
SUMITUBE	F3 (Z)
SUMITUBE	NHR2
SUMITUBE	NHR4
SUMITUBE	V (300V)
SUMITUBE	V (600V)
SUMITUBE	F2 (Z)
SUMITUBE	F4 (Z)
SUMITUBE	B2
SUMITUBE	B2 (3X)
SUMITUBE	B8
SUMITUBE	K
SUMITUBE	K2
SUMITUBE	KH200 (TW)
SUMITUBE	KH230 (TW)
SUMITUBE	B6
SUMITUBE	R
SUMITUBE	AN25
SUMITUBE	W
SUMITUBE	O2C
SUMITUBE	W3C
SUMITUBE	O2B2
SUMITUBE	W3F2
SUMITUBE	W3B2
SUMITUBE	W3B2 (4X)
SUMITUBE	SA2
SUMITUBE	SA3

Basic Properties

- Material : Irradiated cross-linked flexible flame-retarded polyolefin
- Shrink temperature : min. 100°C
- Shrink ratio : Radial change: min. 50%
Longitudinal change: -5 ±5%
- Continuous operating temperature : -55 to 125°C

Features

- UL recognized
- Flexible
- Flame-retarded (halogen-based flame-retardant-free)

Specifications/Approvals

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

Marking on Surface

UL 125°C VW-1 SUMITUBE NHR2 -F- XXX
(XXX indicates size)

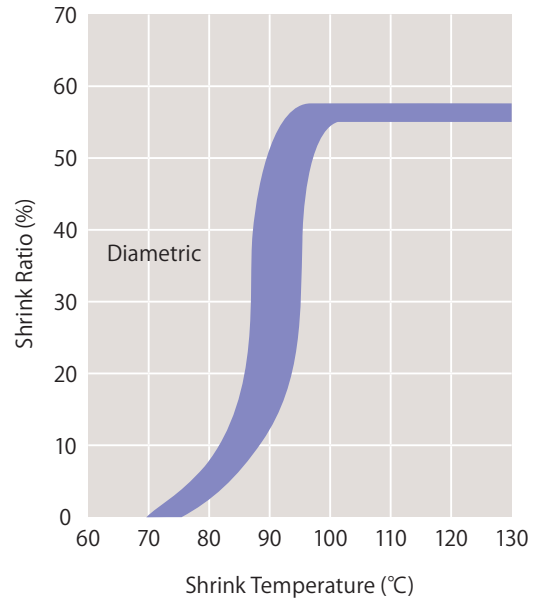
Applications

- Insulation, protection and reinforcement for termination and joints of electric wire
- Color identification and bundling for electric wires

Colors

- Black

Shrink Properties



Properties [UL224]

Properties	Items	Requirements	Typical values*1
Mechanical	Tensile strength (before aging)	min. 10.4MPa	11.9MPa
	Tensile strength (after aging)	158°C x 7 days, min. 7.3MPa	11.5MPa
	Elongation (before aging)	min. 200%	510%
	Elongation (after aging)	158°C x 7 days, min. 100%	460%
	Heat shock	250°C x 4 hours, no crack	Pass
Electrical	Cold bend	-30°C x 1 hour, no crack	Pass
	Dielectric withstand (before aging)	AC2.5kV x 60 sec., no breakdown	Pass
	Dielectric withstand (after aging)	158°C x 7 days, AC2.5kV x 60 sec., no breakdown	Pass
	Dielectric breakdown (before aging)	min. AC2.5kV	16.0kV
	Dielectric breakdown (after aging)	158°C x 7 days, min. 50% of original and min. AC2.5kV	Pass
Chemical	Volume resistivity	min. 1.0 x 10 ¹⁴ Ω·cm	4.0 x 10 ¹⁵ Ω·cm
	Corrosion against bare copper	158°C x 7 days, no corrosion after leaving under 95% humidity, 23°C x 24 hours	Pass
	Flammability	Flame-retarded, pass VW-1	Pass

*1: For reference use only

Sizes

Trade size (mm)	As supplied (mm)			After recovered (mm)		Unit length (min.) (m)	Nominal size (mm)	As supplied (mm)			After recovered (mm)		Unit length (min.) (m)
	Inside diameter	Wall thickness (nom.)	Inside diameter (max.)	Wall thickness (min.)	Inside diameter			Wall thickness (nom.)	Inside diameter (max.)	Wall thickness (min.)			
1 × 0.2	1.40 ± 0.20	0.20	0.50	0.33	200	11 × 0.25	11.4 ± 0.4	0.25	5.50	0.56	50		
1.5 × 0.2	2.00 ± 0.20	0.20	0.75	0.36	200	12 × 0.25	12.4 ± 0.4	0.25	6.00	0.56	50		
2 × 0.2	2.50 ± 0.20	0.20	1.00	0.44	200	13 × 0.3	13.4 ± 0.4	0.30	6.5	0.69	50		
2.5 × 0.25	3.00 ± 0.20	0.25	1.25	0.44	200	14 × 0.3	14.5 ± 0.4	0.30	7.0	0.69	50		
3 × 0.25	3.50 ± 0.30	0.25	1.50	0.44	200	15 × 0.3	15.5 ± 0.5	0.30	7.5	0.69	50		
3.5 × 0.25	4.00 ± 0.30	0.25	1.75	0.44	200	16 × 0.3	16.8 ± 0.5	0.30	8.0	0.69	50		
4 × 0.25	4.50 ± 0.30	0.25	2.00	0.44	200	18 × 0.35	18.7 ± 0.5	0.35	9.0	0.77	50		
5 × 0.25	5.40 ± 0.30	0.25	2.50	0.56	100	20 × 0.35	21.2 ± 0.6	0.35	10.0	0.77	50		
6 × 0.25	6.4 ± 0.4	0.25	3.00	0.56	100	22 × 0.4	23.2 ± 0.6	0.40	11.0	0.77	50		
7 × 0.25	7.4 ± 0.4	0.25	3.50	0.56	50	25 × 0.4	26.1 ± 0.8	0.40	12.5	0.87	50		
8 × 0.25	8.4 ± 0.4	0.25	4.00	0.56	50	28 × 0.5	29.0 ± 1.0	0.50	14.0	0.87	50		
9 × 0.25	9.4 ± 0.4	0.25	4.50	0.56	50	30 × 0.5	32.0 ± 1.0	0.50	15.0	0.87	50		
10 × 0.25	10.4 ± 0.4	0.25	5.00	0.56	50								

IRRX™TUBE	
IRRX™TAPE	
IRRX™TUBE	A
IRRX™TUBE	B
IRRX™TUBE	F2
IRRX™TUBE	F2 (UL)
IRRX™TUBE	V2
IRRX™TUBE	RP3
IRRX™TUBE	B8
IRRX™TUBE	ER2
IRRX™TUBE	NHR
IRRX™TUBE	FE2
IRRX™TAPE	VZL

IRRX™SLEEVE	
IRRX™SLEEVE	SCM2
IRRX™SLEEVE	SBI 300/350
IRRX™SLEEVE	SNHM
Composite articles	
SUMISEAL	
SUMITUBE SA3 CAP	
Processing equipment	
SUMISHRINKER / HEATING GUN	