

SUMITUBE™ R

[Rubber-like, flame-retarded heat-shrinkable tubing]
SAE

✓ RoHS directive 10 substances

Waterproofing Flame-retarded UL recognized CSA recognized



Basic Properties

- Material : Irradiated cross-linked flexible flame-retarded polyolefin
- Shrink temperature : min. 130°C
- Shrink ratio : Radial change: min. 50%
Longitudinal change: min. -10%
- Continuous operating temperature : -70 to 121°C

Features

- SAE Flexible
- Flame-retarded Highly resistant against oil

Specifications/Approvals

SAE-AS23053/1 Class 1, 2

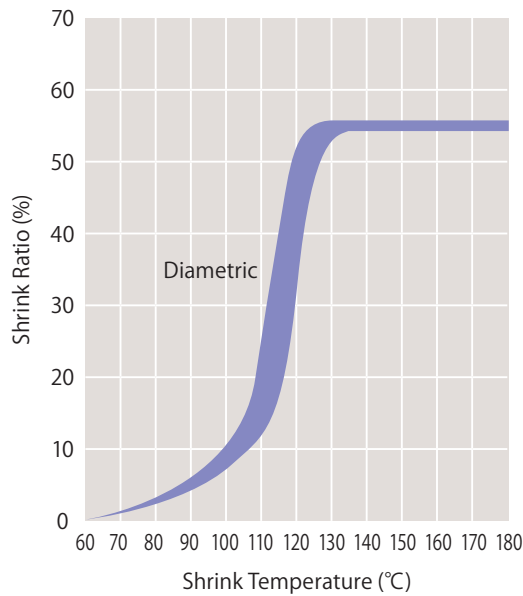
Applications

- Used for roller lining as a rubber substitute
- Insulation, protection and reinforcement for wire and devices where flexibility is required
- Insulating rubber-sheathed cable joints
- Preventing buckling in lead wires

Colors

- Black

Shrink Properties



Properties [SAE-AS23053/1 Class 2]

| Properties | Items | Requirements | Typical values*1 |
|--------------|------------------------------------|--|---|
| Mechanical | Tensile strength (before aging) | min. 10.4MPa | 16.0MPa |
| | Elongation (before aging) | min. 225% | 495% |
| | Elongation (after aging) | 121°C x 7 days, min. 175% | 430% |
| | Low temperature flexibility | -70°C x 4 hours, no crack | Pass |
| | Heat shock | 200°C x 4 hours, no crack | Pass |
| Electrical | Dielectric strength (before aging) | min. 11.8kV/mm | 25.0kV/mm |
| | Dielectric strength (after aging) | 121°C x 7 days, min. 19.7kV/mm | 23.5kV/mm |
| | Volume resistivity | min. $1.0 \times 10^{15} \Omega \cdot \text{cm}$ | $3.1 \times 10^{16} \Omega \cdot \text{cm}$ |
| Chemical | Corrosion against bare copper | 150°C x 16 hours, no corrosion | Pass |
| | Fluid resistance | After immersion in the fluids specified in SAE-AS23053 at 23°C for 24 hours, | |
| | Tensile strength | min. 6.9MPa | 12.2MPa |
| | Elongation | min. 175% | 433% |
| | Dielectric strength | min. 9.8kV/mm | 23.0kV/mm |
| Flammability | ASTM D2671 Procedure A | Pass | |

*1: For reference use only

Sizes

| Trade size (inch) | As supplied (mm) | | After recovered (mm) | | Unit length (min.) (m) |
|-------------------|------------------------|-----------------------|------------------------|-----------------|------------------------|
| | Inside diameter (min.) | Wall thickness (nom.) | Inside diameter (max.) | Wall thickness | |
| 1/4 | 6.4 | 0.45 | 3.20 | 0.89 ± 0.25 | 61 |
| 3/8 | 9.5 | 0.55 | 4.80 | 1.01 ± 0.25 | 30.5 |
| 1/2 | 12.7 | 0.60 | 6.4 | 1.22 ± 0.38 | 30.5 |
| 3/4 | 19.1 | 0.70 | 9.5 | 1.45 ± 0.38 | 30.5 |
| 1 | 25.4 | 0.90 | 12.7 | 1.78 ± 0.51 | 30.5 |
| 1-1/4 | 31.8 | 1.00 | 15.9 | 2.20 ± 0.51 | 30.5 |
| 1-1/2 | 38.1 | 1.20 | 19.1 | 2.41 ± 0.51 | 30.5 |
| 1-3/4 | 44.5 | 1.30 | 22.2 | 2.71 ± 0.51 | 30.5 |
| 2 | 50.8 | 1.30 | 25.4 | 2.79 ± 0.51 | 30.5 |

SUMITUBE™

A
C
A4
SUMITUBE LA
C (UL)
D
A2

SUMITUBE B
LB

F (Z)
F3 (Z)
SUMITUBE NHR2
NHR4
V (300V)
V (600V)

F2 (Z)
F4 (Z)
SUMITUBE B2
B2 (3X)
B8

SUMITUBE K
K2

SUMITUBE KH200 (TW)

SUMITUBE KH230 (TW)

B6

SUMITUBE R
AN25

SUMITUBE W

SUMITUBE O2C
W3C

O2B2
W3F2
SUMITUBE W3B2
W3B2 (4X)
SA2
SA3

IRRAX™TUBE IRRAX™TAPE

A
B
F2
F2 (UL)
V2
IRRAXTUBE RP3
B8
ER2
NHR
FE2
IRRAXTAPE VZL

IRRAX™SLEEVE

SCM2
IRRAXSLEEVE SB1
300/350
SNHM

Composite articles

SUMISEAL
SUMITUBE SA3 CAP

Processing equipment

SUMISHRINKER / HEATING GUN