

Irrax™ tubeB (Heat-resistant, flame-retardant tubing for general purpose)

● Basic Properties

- (1) Materials : Cross-linked, flexible, flame-retardant polyolefin resin
- (2) Continuous operating temperature : -45 to 120°C

● Features & Benefits

- (1) Flame-retardant
- (2) Opaque colors

● Specifications & Approvals

SFP standard (R1-0380)

● Applications

- (1) Insulation and heat protection of wire harnesses and parts for automobile
- (2) Protection of wiring inside an airplane where flame-retardance is required
- (3) Protection of lead wires and parts which are subject to high temperature

● Colors

Standard colors : Black, brown, red, orange, yellow, green, blue, violet and white

● Properties

| Properties | Items | Requirements | Typical values* |
|------------|---|--|---|
| Mechanical | Tensile Strength | 10.4MPa min. | 18.6MPa |
| | Ultimate Elongation | 200%min | 450% |
| | Specific Gravity | - | 1.03 |
| | Hardness (Shore-D) | - | 42 |
| Electrical | Dielectric Voltage Withstand (before aging) | A.C.2.5kV×60 sec. No breakdown | Pass |
| | Volume Resistivity | $1.0 \times 10^{14} \Omega \cdot \text{cm}$ min. | $1.1 \times 10^{17} \Omega \cdot \text{cm}$ |
| Chemical | Water Absorption | 23°C×24 hours, 0.30% max. | 0.15% |
| | Flammability | Flame-retardant (according to FMVSS Law*2) | Pass |

*1: Some are not guaranteed performance

*2: FMVSS stands for Federal Motor Vehicle Safety Standard, which is US Automobile standard.

● Sizes

| Nominal Size | Inside Diameter (mm) | Wall Thickness (mm) | Unit Length (m) |
|--------------|----------------------|---------------------|-----------------|
| 0.7×0.35 | 0.70±0.10 | 0.35±0.05 | 1,000 min. |
| 1.0×0.35 | 1.00±0.10 | 0.35±0.05 | 500 min. |
| 0.5×0.35 | 1.50±0.10 | 0.35±0.05 | 400 min. |
| 2×0.35 | 2.00±0.20 | 0.35±0.05 | 200 min. |
| 3×0.35 | 3.00±0.20 | 0.35±0.05 | 400 min. |
| 4×0.35 | 4.00±0.30 | 0.35±0.05 | 400 min. |
| 5×0.35 | 5.00±0.30 | 0.35±0.05 | 200 min. |
| 6×0.35 | 6.00±0.50 | 0.35±0.05 | 200 min. |
| 8×0.4 | 8.0±0.5 | 0.40±0.05 | 100 min. |
| 10×0.4 | 10.0±0.5 | 0.40±0.05 | 100 min. |
| 12×0.4 | 12.0±0.5 | 0.40±0.05 | 100 min. |
| 14×0.5 | 14.0±0.5 | 0.50±0.05 | 100 min. |

Longitudinal change: -20% min. (125°C×1 minute)

● Caution!

All statements and technical information contained herein are based on tests we believe to be liable and only general properties are described. Therefore, safety of each specific application by the users should not be guaranteed. The users themselves should determine product conformance to your specific applications and assume all responsibility for all damages that may be caused directly or indirectly when using the products.