Polyolefin Heat-Shrink Tubing

# FITCOTUBE® FT010

Halogen-free, flame-resistant heat-shrink tubing with flat surface. Use as cable labelling and wire sheath in military technology, vehicles for mass transport and public buildings. High flexibility at low temperatures.

**Operating temperature:** - 40°C to + 105°C

**Shrink temperature:** + 120° C

**Shrink ratio:** 2: 1

**Standard colors:** Black

**Approvals:** ASTM, BS 6853, BSS 7239 Boeing Specification Support Standard, Japanese Standard for railway vehicle material, LUL: London Underground Limited Eng. Stand. E 1042. A6, SAE-AMS-DTL-23053, EN45545-2, IEC 60684-3-216

**Standard dimensions:**

| Description | Inner diameter (mm) | | Wall thickness (mm) |
|---|---|---|---|
| | as supplied (min.) | after full recovery (max.) | after full recovery (nom.) |
| FT010-160 | 1.60 | 0.80 | 0.70 |
| FT010-240 | 2.40 | 1.20 | 0.70 |
| FT010-320 | 3.20 | 1.60 | 0.70 |
| FT010-480 | 4.80 | 2.40 | 0.85 |
| FT010-640 | 6.40 | 3.20 | 0.90 |
| FT010-950 | 9.50 | 4.80 | 1.00 |
| FT010-1270 | 12.70 | 6.40 | 1.20 |
| FT010-1900 | 19.10 | 9.50 | 1.40 |
| FT010-2540 | 25.40 | 12.70 | 1.80 |
| FT010-3800 | 38.10 | 19.10 | 1.80 |
| FT010-5100 | 50.80 | 25.40 | 2.20 |

**Packaging:** On Spools.
Cut and printed lengths on request.

**Processing note:** Care for clean and accurate cutting edge.
Start shrinkage on the end.
Pre-heat metal body.

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| Attributes | Testing | Requirements | Value |
|---|---|---|---|
| **Mechanical** | | | |
| Tensile strength | ASTM D 638 | Min. 10,4 MPa | pass |
| Ultimate Elongation | ASTM D 638 | Min. 200% | pass |
| Longitudinal Change | IEC 60684-3-216 | 5 to -10% | pass |
| Elastic modulus | ASTM D 882 | Max. 173 MPa | pass |
| **Thermal** | | | |
| Low temperature flexibility (-40°C x 4 h) | SAE-AMS-DTL-23053 | no cracking | pass |
| Elongation after long-term ageing (136°C x 168 h) | ASTM D 638 | Min. 7,3 MPa | pass |
| Short-term ageing (225°C x 4 h) | SAE-AMS-DTL-23053 | no crack, flowing or dripping | pass |
| Fire behavior | LUL: London Underground | self-extinguishing | - |
| **Electrical** | | | |
| Dielectric strength | ASTM D 876 | Min. 19,7 kV/mm | pass |
| Volume resistivity | ASTM D 876 | Min. $10^{12}$ Ω*cm | ≥ 6 x $10^{13}$ Ω/cm |
| **Chemical** | | | |
| Halogen content | NFX-70-100 BS 6853 | zero | zero |
| Water absorption | ASTM D 570 | Max. 1,0 | pass |
| Copper Corrosion | SAE-AMS-DTL-23053 | no corrosion | pass |
| **Safety-relevant** | | | |
| Oxygen index | EN 45545-2 | Min. 32 | ≥ 37 |
| Smoke density | EN 45545-2 | Max. 150: R22 / HL3 | < 150: R22 / HL3 |
| Toxic gas evolution | BSS 7293 | ppm limit (6 gases) | pass |
| Toxic smoke development | EN 45545-2 | Max. 0,75 | < 0.75: R22 7 HL3 |