3M Heat Shrink Tubing GTI Thin Wall Tubing

Data Sheet

Product Description

Flexible, irradiated polyolefin tube that shrinks when heat is applied. Fast and easy installation. Available in a range of colours and a large range of diameters. Easy to purchase and excellent electrical and mechanical properties. In a convenient packaging, GTI tubing can be easily stored or displayed (see also GTI rack / point of sale display).

Applications

GTI tubings are designed to provide excellent insulation and protection in various industrial applications. Available in a large range of colours and sizes: 1.2mm up to 102.0mm. This standard tubing performs well on electrical connections and identification of wires and cables.

Technical Information

Made of cross-linked polyolefin, GTI think wall tubing is supplied in an adapted carton sleeve, which allows shipment, storage and display filling.

| Continuous operating temperature | -55°C to +135°C |
|----------------------------------|--------------------|
| Base material | Polyolefin |
| Shrink ratio | 2:1 |
| Shrink temperature | 100° (min) |
| Flame resistance | Self-extinguishing |

Official Approvals

See reverse.

| Features | Benefits |
|--|--|
| Heat shrink technology | Easy to install, little training required |
| | saves time |
| Wide range of colours and diameters | Colour marking for any tubing dimension |
| (from 1.2mm to 102.0mm) | flexible and diverse marking |
| Excellent electrical and mechanical properties | Reliable product, no product failure |
| (cf. technical data sheet) | meets domestic, commercial and industrial needs. |

| Product Code*** | Bore (D) as supplied min. (mm) | Bore (d) recovered max. (mm) | Wall Thickness (W) after shrinkage (mm) |
|--------------------|--------------------------------------|------------------------------------|---|
| GTI 1.2/0.6* | 1.2 | 0.6 | 0.4 |
| GTI 1.6/0.8* | 1.6 | 0.8 | 0.4 |
| GTI 2.4/1.2* | 2.4 | 1.2 | 0.5 |
| GTI 3.2/1.6** | 3.2 | 1.6 | 0.5 |
| GTI 4.8/2.4 | 4.8 | 2.4 | 0.5 |
| GTI 6.4/3.2 | 6.4 | 3.2 | 0.6 |
| GTI 9.5/4.8 | 9.5 | 4.8 | 0.6 |
| GTI 12.7/6.4 | 12.7 | 6.4 | 0.6 |

| Product Code** | Bore (D) as supplied min. (mm) | Bore (d) recovered max. (mm) | Wall Thickness (W) after shrinkage (mm) |
|-----------------|--------------------------------------|------------------------------------|---|
| GTI 19.0/9.5 | 19.0 | 9.5 | 0.8 |
| GTI 25.4/12.7 | 25.4 | 12.7 | 0.9 |
| GTI 38.0/19.0 | 38.0 | 19.0 | 1.0 |
| GTI 51.0/25.4** | 51.0 | 25.4 | 1.1 |
| GTI 76.0/38.0* | 76.0 | 38.0 | 1.3 |
| GTI 102.0/51.0 | 102.0 | 51.0 | 1.4 |

Available colours: black, blue, red, clear, yellow, white, green/yellow, brown. ** Note available in yellow/green

* The GTI with (D) = 1.2; 1.6; 76.0 and 102.0 are only available in black

All tubes are in 1 metre length

*** Expanded diameter / diameter after shrinkage

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| Typical Properties | Values* | Test method |
|---|----------------------------------|--------------------|
| Base material | Polyolefin | |
| Physical | | |
| Shrink ratio | 2:1 | |
| Tensile strength | 18 N/mm^2 | IEC 684 P2 |
| Ultimate elongation | 400% | IEC 684 P2 |
| Longitudinal change | -5% max | IEC 684 P2 |
| Concentricity | 70% min | IEC 684 P2 |
| Secant modulus (2% elong.)1 | 60 N/mm ² | IEC 684 P2 |
| Relative density, transparent version | 1.00 g/cm3 | IEC 684 P2 |
| Relative density | 1.29 g/cm3 | IEC 684 P2 |
| Thermal | | |
| Continuous operating temperature | -55°C to +135°C | IEC 216 |
| Shrink temperature | 100°C min. | |
| Heat shock (4hrs, 250°C)1 | No cracking, flowing or dripping | IEC 684 P2 |
| Heat ageing (168hrs, 158°C)1 | | IEC 684 P2 |
| - Tensile strength | 15 N/mm^2 | |
| - Ultimate elongation | 350% | |
| Low temperature flexibility (4hrs, -55°C) | No cracking | IEC 684 P2 |
| Copper corrosion (16hrs, 175°C)1 | No corrosion | IEC 684 2 |
| Flammability | Self extinguishing~ | VG 95 343/2 Meth.A |
| Electrical | | |
| Dielectric strength | 450 kV/cm | IEC 684 P2 |
| Volume resistivity | 1*1016 Ohm.cm | IEC 684 P2 |
| Chemical | | |
| Fungus resistance | Inert | IEC 684 P2 |
| Chemical resistance | Good | IEC 684 P2 |

1 Test methods are in accordance with IEC 684 P2, except for test conditions as indicated under "Typical Properties" (between brackets)

Except transparent

* Not recommended for specification purposes

Storage

Under normal storage conditions (23°C, @ 50% RH), the tubing will remain stable for a minimum of 5 years, provided that the material is stored in its original container.

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