



## HEAT SHRINK TUBING MWTM

### MEDIUM-WALL LOW VOLTAGE INSULATION AND CORE PROTECTION TUBING UP TO MEDIUM VOLTAGE

#### KEY FEATURES

- High electrical characteristics and mechanical strength for low voltage applications
- Medium-wall, cross-linked polyolefin. UV stabilized against irradiation and weathering
- Halogen and silicon-free material content, non-corrosive, non-toxic, free of lead and aluminium
- Available inline coated with hot melt adhesive or uncoated
- Color black, 3:1 shrink ratio
- Unlimited shelf-life

TE Connectivity's (TE) Raychem MWTM heat shrink medium-wall tubing is designed for insulation on low voltage cable accessories, as well as for sealing and protection purposes on low and medium voltage cables and cable accessories. In this tubing type, the electrical and physical properties of cable oversheath and core insulation of low voltage cables are combined with ruggedness and easy installation.

During heating, TE's Raychem MWTM tubing shrinks to the original smaller diameter, fitting tightly over a wide range of cable sizes and cable accessories. At the same time the tubing's inner sealant wall gives a reliable moisture seal over even the most irregular shapes.

The MWTM tubing is widely used to insulate, protect and seal low voltage power cable joints and terminations, as well many further applications in cable accessories and electrical connections.

The material content of the MWTM tubing is halogen-free and stabilized against UV irradiation. The MWTM tubing is available, both uncoated or coated with hot-melt sealant. It has proven its long-term reliability in harsh climatic conditions and in polluted environments and has an unlimited shelf-life when stored under normal conditions.

**Customers can count on consistent, high quality products, driven by TE's proven innovation and backed by our extraordinary customer support.**

## Heat Shrink Tubing MWTM

Compliant to RoHS and REACH regulations.

Approved for offshore applications.



| TESTING                                                                                |                                                                                                          |                                            |
|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Physical Characteristic                                                                | Test Method                                                                                              | Material Requirements                      |
| Tensile Strength                                                                       | ISO 37                                                                                                   | 14 MPa min                                 |
| Ultimate Elongation                                                                    | ISO 37                                                                                                   | 350% min                                   |
| Hardness                                                                               | ISO 868                                                                                                  | ≥ 45 shore D                               |
| Accelerated ageing<br>7 days at 150°C ± 2°C<br>Tensile Strength<br>Ultimate Elongation | ISO 188<br>ISO 37<br>ISO 37                                                                              | 14 MPa min<br>350% min                     |
| Thermal Endurance*                                                                     | IEC 60216                                                                                                | 120°C min.                                 |
| Low Temperature Flexibility                                                            | ASTM D2671 Procedure C                                                                                   | No cracking at 4 hours at -40°C ± 3°C      |
| Dielectric Strength                                                                    | IEC 60243 part 1 and 2                                                                                   | ≥ 10 kV/mm min.                            |
| Volume Resistivity                                                                     | IEC 60093                                                                                                | 1 x 10 <sup>10</sup> Ω cm min              |
| Water Absorption                                                                       | ISO 62 method 1                                                                                          | ≤ 0.25% max after 14 days<br>at 23°C ± 2°C |
| Weathering                                                                             | The material from which MWTM is manufactured contains carbon black to protect it from ultra-violet light |                                            |
| Additional Properties                                                                  | Further details are given in TE's Raychem Specifications PPS 3010/19 (A) [1326].                         |                                            |
| Resistance to Liquids                                                                  |                                                                                                          |                                            |
| 7 days in transformer oil VDE 0370 at 23°C ± 2°C                                       | ISO 1817                                                                                                 |                                            |
| Tensile Strength                                                                       | ISO 37                                                                                                   | 14 MPa min                                 |
| Ultimate Elongation                                                                    | ISO 37                                                                                                   | 300% min.                                  |

| PRODUCT SELECTION INFORMATION - DIMENSIONS ARE SHOWN IN MM |                   |      |              |               |                |               |
|------------------------------------------------------------|-------------------|------|--------------|---------------|----------------|---------------|
| Description                                                | Application Range |      | Diameter     |               | Wall Thickness |               |
|                                                            | from              | to   | Expanded min | Recovered max | Expanded nom   | Recovered min |
| MWTM- 10/3                                                 | 3.5               | 9.0  | 10           | 3             | 0.3            | 1.0           |
| MWTM- 16/5                                                 | 5.5               | 14.5 | 16           | 5             | 0.3            | 1.4           |
| MWTM- 25/8                                                 | 9.0               | 22.5 | 25           | 8             | 0.4            | 2.0           |
| MWTM- 35/12                                                | 13.0              | 31.5 | 35           | 12            | 0.4            | 2.0           |
| MWTM- 50/16                                                | 18                | 45   | 50           | 16            | 0.5            | 2.0           |
| MWTM- 63/19                                                | 21                | 57   | 63           | 19            | 0.6            | 2.4           |
| MWTM- 75/22                                                | 24                | 68   | 75           | 22            | 0.6            | 2.7           |
| MWTM- 85/25                                                | 28                | 77   | 85           | 25            | 0.6            | 2.8           |
| MWTM- 95/29                                                | 32                | 86   | 95           | 29            | 0.7            | 3.1           |
| MWTM- 115/34                                               | 37                | 104  | 115          | 34            | 0.7            | 3.1           |
| MWTM- 140/42                                               | 46                | 126  | 140          | 42            | 0.7            | 3.1           |
| MWTM- 160/50                                               | 55                | 144  | 160          | 50            | 0.7            | 3.2           |
| MWTM- 180/60                                               | 66                | 162  | 180          | 60            | 0.7            | 3.2           |
| MWTM- 245/80 *                                             | 88                | 220  | 245          | 80            | n.a.           | 2.4           |
| MWTM- 285/135 *                                            | 149               | 255  | 285          | 135           | n.a.           | 1.4           |

\* Uncoated only.

Standard Lengths: All sizes are available in the standard lengths 1000 mm and 1500 mm.  
On request, other lengths and on spools. All lengths subject to standard cutting tolerances.

[te.com/energy](http://te.com/energy)

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