



HEAT SHRINK TUBING HVOT FOR MEDIUM VOLTAGE TERMINATIONS UP TO 36(42) kV

KEY FEATURES

- High electrical characteristics and mechanical strength for medium voltage terminations
- Medium-wall, cross-linked polyolefin and UV-stabilized against irradiation and weathering
- Resistant to tracking and erosion
- Available inline coated with hot melt adhesive, coated with metal oxide stress control material, or uncoated
- Color red, 3:1 shrink ratio
- Unlimited shelf life
- Fast and easy installation

TE's Raychem HVOT heat shrink medium-wall tubing is designed to insulate medium voltage terminations which have insulating properties and sealing and protection purposes for medium voltage cables. Our HVOT tubing is used to protect cable terminations or similar substrates in areas of extreme environmental conditions and high electrical stress.

During heating, TE's Raychem HVOT tubing shrinks to the original smaller diameter, fitting tightly over a wide range of cable sizes and cable accessories. The tubing protects the substrates from erosion caused by leakage current. The sealant from the tubing provides a moisture proof environmental seal to the substrate.

Our HVOT Mono-Extruded tubing is used as an integral part of TE's Raychem Medium Voltage Heat Shrink Terminations type EPKT for voltage classes from 1 kV to 19/33(36) kV as per IEC 60502-4 or as per CENELEC HD 629.1.

Our HVOT Co-Extruded tubing is used as an integral part of TE's Raychem Medium Voltage Heat Shrink Terminations type IXSU-F/OXSU-F/POLT/HVT-Z from the voltage class 5.8 kV to 35 kV as per IEEE-48 and from 6.35/11(12) kV to 20.8/36(42) kV as per CENELEC HD 629.1.

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

Heat Shrink Tubing HVOT



| MONO-EXTRUDED STANDARD PRODUCT DIMENSIONS ARE SHOWN IN mm | | | | | | |
|--|-------------------|------|----------|-----------|----------------|-----------|
| Product Size | Application Range | | Diameter | | Wall thickness | |
| | Max. | Min. | Expanded | Recovered | Expanded | Recovered |
| Mono-Extruded | | | | | | |
| HVOT-20/8 | 18.00 | 9.2 | 20 | 8 | 0.80 | 2.70 |
| HVOT-32/10 | 28.80 | 11.5 | 32 | 10 | 0.80 | 2.70 |
| HVOT-38/12 | 34.20 | 13.8 | 38 | 12 | 0.90 | 2.90 |
| HVOT-50/16 | 45.00 | 18.4 | 50 | 16 | 0.90 | 3.10 |
| HVOT-62/21 | 55.80 | 24.2 | 62 | 21 | 0.90 | 3.10 |
| HVOT-82/29 | 73.80 | 33.4 | 82 | 29 | 0.90 | 3.20 |
| HVOT-90/38 | 81.00 | 43.7 | 90 | 38 | 0.90 | 3.30 |

| CO-EXTRUDED METAL OXIDE COATING/242 STANDARD PRODUCT DIMENSIONS ARE SHOWN IN mm | | | | | | |
|--|-------------------|------|----------|-----------|----------------|-----------|
| Product Size | Application Range | | Diameter | | Wall Thickness | |
| | Max. | Min. | Expanded | Recovered | Expanded | Recovered |
| Co-Extruded | | | | | | |
| HVOT-32/10 | 28.80 | 11.5 | 32 | 10 | 0.80 | 2.70 |
| HVOT-38/12 | 34.20 | 13.8 | 38 | 12 | 0.90 | 2.90 |
| HVOT-50/16 | 45.00 | 18.4 | 50 | 16 | 0.90 | 3.10 |
| HVOT-62/21 | 55.80 | 24.2 | 62 | 21 | 0.90 | 3.10 |
| HVOT-82/29 | 73.80 | 33.4 | 82 | 29 | 0.90 | 3.20 |
| HVOT-92/38 | 83.00 | 34.0 | 92 | 30 | 0.90 | 3.30 |

| TECHNICAL SPECIFICATIONS | | | |
|--|-------------------------|---|------------------------------|
| Physical Characteristics | Relevant Test Standard | Measuring Unit | Measured Values/Requirements |
| Tensile Strength | EN 60684-2 | MPa | 14 |
| Ultimate Elongation | EN 60684-2 | % | 350 |
| Accelerated Ageing 168 Hrs. at (150 ±2)°C | EN 60684-2 | N.A. | N.A. |
| Tensile Strength | EN 60684-2 | MPa | 12 |
| Ultimate Elongation | EN 60684-2 | % | 350 |
| Low Temperature Flexibility 4 Hrs. at (-40 ±3)°C | EN 60684-2 | Visual | No cracking |
| Dielectric Strength | EN 60684-2 | kV/mm | 200 @1.5 mm wall thickness |
| Volume Resistivity | TE Standard | Ohm*cm | 1x10 ¹³ |
| Permittivity | TE Standard | Epsilon relative | 5 |
| Tracking and Erosion | ASTM 2303 | No tracking, erosion flame failure after: 1 h at 2.5 kV, 1 h at 2.75 kV, 1 h at 3.0 kV, 1 h at 3.25 kV, 1 h at 3.5 kV | Pass |
| | IEC 60587 | 1A 4.5 (6h 4.5 kV) | Pass |
| Water Absorption | EN 60684-2 | % | 0.5 |
| Halogen Contents HVOT Mono-Extruded | TE Standard | % by weight | 0.1 |
| Halogen Contents HVOT Co-Extruded/242 | TE Standard | % by weight | 0.15 |
| Shrink Ratio | TE Standard | N.A. | 3:1 |
| Longitudinal Change Free Recovered | TE Standard | % | ± 5% |
| Color | N.A. | N.A. | Red |
| Flame Behaviour Vertically | IEC 60332-1 & IEC 62217 | N.A. | Pass |
| UV Behaviour | ASTM Std. G154 | N.A. | Pass |
| Hardness | ISO 868 | Shore -A | >85 |
| Hardness | DIN 53505 | Shore -D | 40 - 50 |
| Limiting Oxygen Index | ISO 4589-2 | % | 23.9 |

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