

TTU-X

UNIQUE, SHRINKABLE INSULATION FOR MULTIPURPOSE USE

- Dual-layer design: outer layer shrinks, inner adhesive layer melts
- The adhesive fully seals the connection, providing high strength and complete waterproofing
- Excellent resistance to corrosion, UV radiation, water, chemicals, and acids
- Suitable for direct application on copper
- Highly durable
- THERMO TUBE X adapts to any shape
- Fast, simple, and safe to use
- Flame-retardant and permanently flexible



Notice

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THERMO TUBE X

General Information

THERMO TUBE X is a flexible, heat-shrinkable dual-wall tubing manufactured from radiation cross-linked polyolefins. It features an integrally bonded, meltable adhesive inner lining designed to provide permanent, moisture-proof encapsulation for a wide range of substrates and applications. When heat is applied, the outer layer shrinks while the inner adhesive layer melts and is forced into crevices and interstices, ensuring complete sealing of the connection. Upon cooling, the tubing forms a flexible, tough, homogeneous covering with controlled wall thickness, offering high mechanical strength and absolute waterproofing. It exhibits excellent resistance to corrosion, UV radiation, water,

chemicals, and acids, and can be applied directly to copper conductors. The material is flame-retardant, permanently flexible, and highly durable, ensuring long service life. With a shrink ratio of up to 3:1, it adapts precisely to irregular shapes. As a result, only a limited range of sizes (8) is required to cover a broad spectrum of applications. Installation is fast, simple, and safe, making it easy and reliable to process. THERMO TUBE X is manufactured from radiation cross-linked polyolefins. THERMO TUBE X shrinks to 1/3 of its supplied diameter and thus only a few sizes (8) are required to cover a full range of irregular shapes in a wide variety of applications.

Technical Information

Temperature resistance:
 continuous: from -55 + 110°C
 heat shock (ASTM D 2671): 4 hours at 225°C
 heat resistance (ASTM D 2671): 168 hours at 150°C
 Shrink temperature: 125°C
 Shrink ratio: 3:1
 Tensile strength ISO 37: 11.5 MPa.
 Ultimate elongation ISO 37: 490%.
 Flexibility: flexible.
 Dielectric strength IEC 243: 30 MV/m (VDE 0303 Pt2).

Electrical resistance: 10^{13} Ohm
 Flame retardancy ASTM D 876, ASTM D 2671:
 Inner wall: no.
 Outer wall: yes, retardant
 Fluid resistance ISO 1817 and ISO 37
 Immersion 24h at 23°C:
 Hydraulic fluid: excellent
 Aviation fuel F 40: good
 Lubricating oil O-149: good
 Diesel fuel F-54: good

Application and Use

- Can be used for all electrical applications (cables, cable connections, and terminals) to insulate, protect, and seal
- Suitable for contact with chemicals, but not resistant to alkaline earth metals
- Protects metal pipes from corrosion and wear
- for reinforcement of cable gaps and prevention of electrolytic corrosion
- Provides insulation and protection for electrical components in motor vehicles and protection of coaxial cable connectors
- Resistant to chemicals, synthetic fluids, fuel, and hydraulic oils

Article nr	Name	Content	Shelf Life	Catalog
T800320	Thermo Tube X 3,2/1 mm	1,20m	-	ELECTRICAL CONNECTIONS
T800450	Thermo Tube X 4,8/1,5 mm	1,20m	-	ELECTRICAL CONNECTIONS
T800640	Thermo Tube X 6,4/2 mm	1,20m	-	ELECTRICAL CONNECTIONS
T800940	Thermo Tube X 9,4/3 mm	1,20m	-	ELECTRICAL CONNECTIONS
T801270	Thermo Tube X 12,7/4 mm	1,20m	-	ELECTRICAL CONNECTIONS
T801910	Thermo Tube X 19,1/7,9 mm	1,20m	-	ELECTRICAL CONNECTIONS
T802540	Thermo Tube X 25,4/10 mm	1,20m	-	ELECTRICAL CONNECTIONS
T804000	Thermo Tube X 40/13 mm	1,20m	-	ELECTRICAL CONNECTIONS

