

FireMaster[®] UI-T Wrap

Product Data Sheet



Product Description

FireMaster UI-T Wrap is a flexible thermal barrier wrap material used to enclose conduit and pipe to provide up to 2-hour fire protection. The proprietary matrix cools the protected item by absorbing the energy of the fire while at the same time insulating against the extreme heat of a fire.

FireMaster UI-T Wrap is specifically tested to protect against the full engulfment of a cellulosic (ASTM E119) fire environment and to keep the temperatures on the protected item below 121°C (250°F) average temperature rise as per the acceptance criteria defined in ASTM E1725. This makes it ideally suited to protect critical building systems like life-safety related electrical systems and emergency generator fuel transfer lines.

Features

- Up to 2-hour fire ratings for circuit protection applications
- Flexible material easy to install even on small diameter conduits and pipes
- Fully encapsulated for easy handling and installation
- Does not contain refractory ceramic fiber (RCF)

Applications

- Protecting electrical circuits including cables, conduits, cable trays
- Columns and beams
- Other enclosure applications where space is a significant constraint

Specifications: 07 80 00 (Fire and Smoke Protection), 26 01 00 (Operation and Maintenance of Electrical Systems)

FireMaster UI-T Wrap applied in multiple layers onto steel EMT, rigid conduit, pipe, or cable tray in accordance with UL Design Listings FHIT.38 and XCLF.TB-8 to achieve 1 or 2-hour protection in accordance with ASTM E119, ASTM E1725, and ASTM E814.

Product shall be nominal 10mm (0.40 in) thick per layer and a nominal 256 kg/m³ (16 pcf) density homogenous mix of endothermic and microporous structured insulation material quilted between high temperature glass fabrics and fully encapsulated in scrim reinforced polypropylene and aluminium foil facings.

Testing and Approvals

Performance Criteria	Test Standards	Values
Circuit Integrity Protection	ASTM E1725,	1 and 2 hour ratings per UL FHIT.38 and XCLF.TB-8
Thermal Barrier Protection	UL 1724	

Physical, Dimensions and Thermal Properties

Performance Criteria	Test Standards
Colour of foil scrim	Silver
Encapsulation	3 ply aluminium foil scrim reinforced polypropylene facing
Thickness, mm (in)	10 (0.4)
Sheet size, cm (in)	86 x 183 (34 x 72)
Weight, kg/m ² (lb/ft ²)	0.23 (0.55)
Wrap area per Sheet, m ² (ft ²)	1.58 (17)
Density, kg/m ³ (pcf)	256 (16)
Tensile strength, MPa (psi)	1.03 (150)
Loss on ignition	<1%, 150°C (400°F) <20%, 1010°C (1850°F)
Thermal conductivity, W/m•K (BTU•in/hr•ft ²)	
	24°C (75°F) 0.029 (0.20)
Shelf life is unlimited when stored properly	

FireMaster® UI-T Wrap

Product Data Sheet

Installation

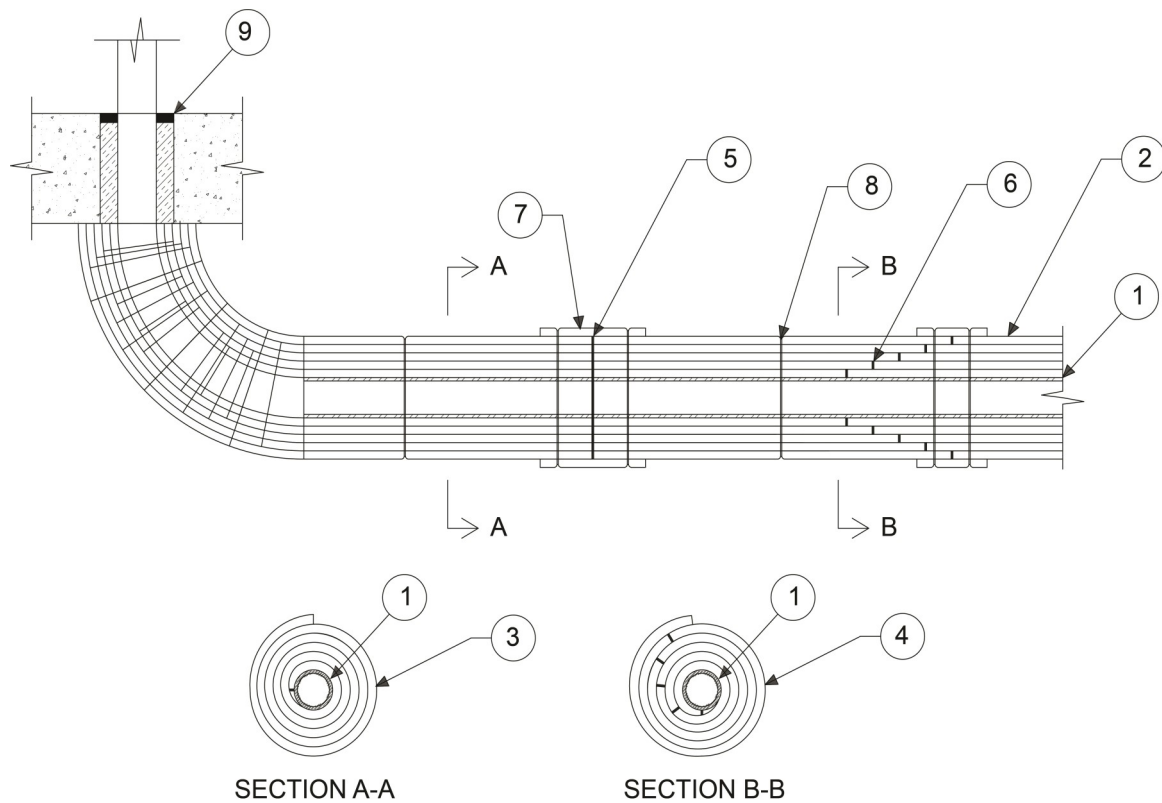
Refer to UL System and determine required number of layers. Follow design listing requirements for joints, seams, and overlaps. Mechanically restrain protective wrap with appropriate steel tie wire.

Maintenance

No maintenance is ordinarily needed. If foil scrim is damaged, repair with aluminum foil tape and maintain min. 51mm (2 in) overlap. For more extensive damage, remove and repair as per original UL design listing.

Storage

Material to be stored in floored, covered warehouse and protected from rain, water, other liquids, and inclement weather where moisture and dampness may deteriorate product. Direct liquid contact will be detrimental and destructive to insulating and physical properties. Store on pallets, timber or concrete blocks to prevent moisture absorption from the ground. Do not stack pallets to prevent compression of insulation.



LEGEND			
1	EMT, Rigid Conduit, Pipe, Cable Tray as specified in UL Design Listings	6	51mm (2 in) transverse offset of joints between layers where multiple individual layers are installed
2	FireMaster UI-T Wrap applied in multiple layers as specified in UL Design Listings	7	150mm (6 in) wide collars installed over outermost joints
3	Continuous layers scroll wrapped with 150mm (6 in) overlap over starting edge	8	Minimum 18 gage steel tie wire attached on maximum 200mm (8 in) centers.
4	Optional: Multiple individual layers installed with butt-joint to start layer and 51mm (2 in) circumferential overlaps	9	Firestop per UL Design Listings per ASTM E814 (UL1479)
5	Butt Joint used where continuous wrap technique is employed, sealed with FireMaster Putty		

Whilst the values and application information in this datasheet are typical, they are given for guidance only. The values and the information given are subject to normal manufacturing variation and may be subject to change without notice. Morgan Advanced Materials – Thermal Ceramics makes no guarantees and gives no warranties about the suitability of a product and you should seek advice to confirm the product’s suitability for use with Morgan Advanced Materials - Thermal Ceramics.