



**FyreWrap®**  
Fire protection materials

## Cable Insulation System



**When Fire Protection Matters Most**

**UNIFRAX**

# Cable Insulation



**FyreWrap® Cable Insulation from Unifrax is a thin flexible insulation wrap designed to provide fire protective enclosures around cable trays and conduit. The FyreWrap system ensures electrical circuit integrity during exposure to an external hydrocarbon fire permitting continued operation or controlled shutdown of critical equipment during emergency conditions.**

The system is FM Global approved and meets ASTM E-1725 "Fire Tests of Fire Resistive Barrier Systems for Electrical System Components" requiring the highest level of performance for trays with zero to full cable loading. The system also meets ASTM E-1529 and provides circuit integrity ratings. FyreWrap Cable Insulation complies with API and ExxonMobil specifications on fire-proofing for petroleum and petrochemical processing.



## System Components

FyreWrap Cable Insulation incorporates Insulfrax® S Blanket as its insulating core. This is a high temperature AES blanket with enhanced biosolubility and which is not classified under the EU Directive 67/548/EEC. It provides excellent insulation and is fully non-combustible.

The core insulation is completely encapsulated in a 50µm aluminium foil reinforced with a bi-directional glass fibre mesh. This covering has excellent tear resistance and enhanced handling characteristics & imparts weather resistance to the system.

## System Flexibility

The flexible wrap is held in place with regularly spaced stainless steel bands. The system can be easily removed and replaced allowing for rapid installation and removal of cables.





## FyreWrap® Cable Insulation Features:

### Technical Performance

- Fire Ratings - 15, 30, 45, 60 minutes (see Test Results section)
- ASTM E-84 Surface Burning Characteristics: Flame/Smoke Rating 5/10
- Insulating core fully non-combustible with zero smoke generation

### Availability

- 38mm ( 1.5 inch) & 50mm ( 2 inch) thicknesses
- Rolls 610mm (2 ft) wide
- 38mm product rolls 5.0m long, 50mm product rolls 3.66m long

### Application Areas

- Refineries & chemical processing plants
- LNG plants
- Offshore

### Approvals

- FM Global Approved—wrap for grouped electrical cables
- API 2218 “Fireproofing Practices in Petroleum and Petrochemical Processing Plants”
- Complies with ExxonMobil GP14-03-01 “Fireproofing”



## Test Results

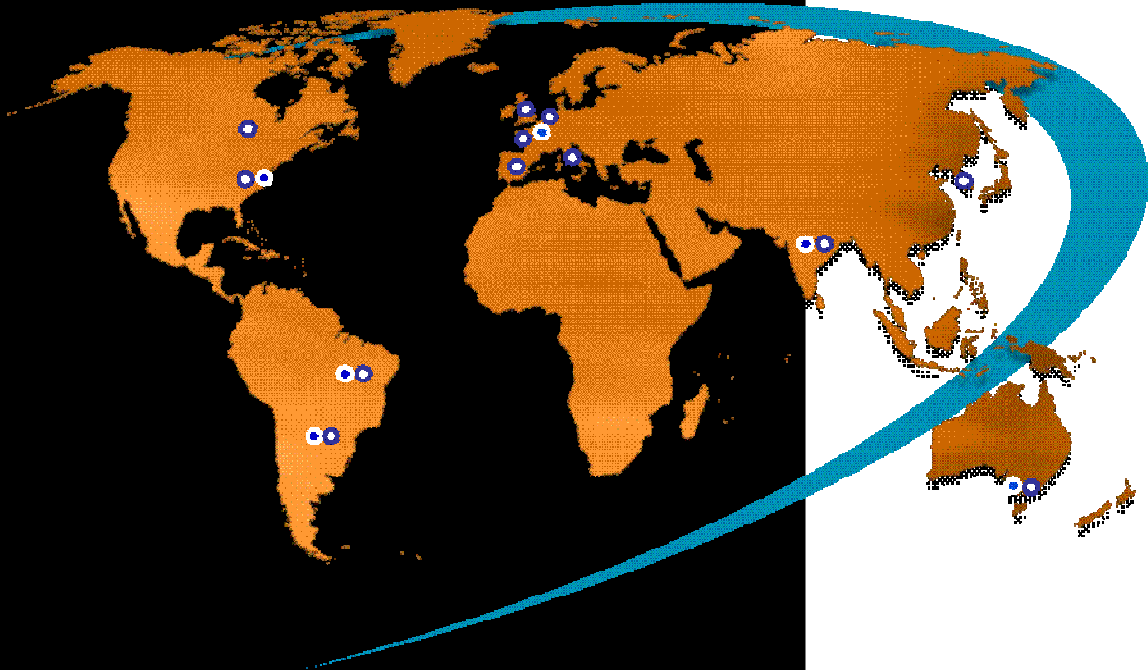
ASTM E-1529 Circuit Integrity (Hydrocarbon Fire Curve, Loaded Trays)					As per FM Global Listing
Tray	Cable Loading	Product Version	Blanket	No. of Layers	ASTM E-1529 Rating
305mm	39% actual fill, 100% visual fill	FyreWrap 1.5 Cable Insulation	38mm	One	30 min.
305mm	39% actual fill, 100% visual fill	FyreWrap 2.0 Cable Insulation	50mm	One	60 min.
914mm	39% actual fill, 100% visual fill	FyreWrap 2.0 Cable Insulation	50mm	One	45 min.

ASTM E-1725 (ASTM E1529 Hydrocarbon Fire Curve, max 121°C temp rise)					
Tray	Cable Loading	Product Version	Blanket	No. of Layers	ASTM E-1725 Rating
305mm	Empty *	FyreWrap 1.5 Cable Insulation	38mm	Two	45min.
305mm	Empty *	FyreWrap 2.0 Cable Insulation	50mm	One	15 min.
305mm	39% actual fill, 100% visual fill	FyreWrap 2.0 Cable Insulation	50mm	One	30 min.
914mm	Empty*	FyreWrap 2.0 Cable Insulation	50mm	One	15 min
914mm	39% actual fill, 100% visual fill	FyreWrap 2.0 Cable Insulation	50mm	One	15 min

\*Empty tray is worst case and qualifies cable loading range from 0 to 100%



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