



Thermal Ceramics

Insulating Our World

Jet fire Hydrocarbon Thermal Stability Bulkhead
Cement FireBarrier 135/110 Deck Fire Protect
Structural Steel Flexible Blanket Cable Trays
Speed Craft Cruise Ships Mega Yachts Milita
Stability Bulkhead Acoustic Insulation Spray
Deck Fire Protection Low Weight Contribution V
Cable Trays FireMaster Marine Plus Lightwei
Yachts Military Vessels Jet fire Hydrocarbon The
Sprayed Refractory Cement Pipe FireBarrier
Contribution Vessel Pipe Structural Steel Fle
Acoustic Insulation Sprayed Refractory Ceme
Low Weight Contribution Vessel Pipe Cruise S



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Weight
Bulkhead
Protection
Acoustic

marine
& offshore industry

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Thermal Ceramics FireMaster® products are used all over the world to protect people and structures against fire. The wide variety of FireMaster® Fire Protection Systems are comprehensively certified and extensively tested to meet national and international standards, offering our customers the security of global proven fire performance in various market sectors:

- Commercial Buildings, Hotels, Sports Stadia and Airport Terminals
- Industrial Plants
- Petrochemical Plants
- Offshore Platforms and FPSO's
- Cruise Ships, Military Vessels, Mega Yachts and Fast Ferries
- Tunnels and Underground Construction

Systems are tested to many international standards and have approvals valid worldwide for cellulosic, hydrocarbon and jet fire protection.

Products

FireMaster Marine Plus Blanket

The new ultra-lightweight fire insulation from Thermal Ceramics designed for weight sensitive applications. Weight savings of 20 to 30% are typical compared to standard FireMaster® 607 Blanket and alternative lightweight solutions. Systems are available for composite, steel and aluminium structures.

FireMaster 607 Blanket

The original, flexible, low biopersistence blanket fire insulation for cellulosic, hydrocarbon and jet fire applications in the marine, offshore and construction industries.

FireMaster 607 Faced Blankets

FireMaster 607 and Marine Plus Blanket are available with surface coatings of aluminium or glass cloth.

FireMaster 607 Water Repellent Blanket

FireMaster 607 and Marine Plus Blanket are available with a water repellent treatment through the entire blanket thickness to inhibit water ingress.

FireMaster FastWrap XL

FireMaster Blanket fully encapsulated with reinforced aluminium foil developed for fire protection of ventilation and kitchen grease ductwork.

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FireMaster 607 Board

Three different grades of FireMaster Board are available to offer designers a choice of products most suitable to their application. Now includes FireMaster 200 Board developed especially for solid core fire doors.

FireMaster 607 Expanding Felt

Expands to 3 times its original thickness to seal gaps, joints and penetration seals.

FireMaster 607 FireFelt

Compressible Felt suitable for applications where very low weight and good resilience are required.

FireMaster FireBarrier 135

Sprayed refractory cement suitable for fire temperatures up to 1350°C and used extensively for fire protection of tunnel structures.

FIREMASTER™



Applications - Marine

FireMaster 607 Marine Plus Blanket is the new lightweight solution for aluminium structures with weight savings of 20 – 30% compared to traditional fibre solutions.

FireMaster Marine Plus Blanket is the new fibre development from Thermal Ceramics. Manufactured using an advanced production technology, FireMaster Marine Plus Blanket is more thermally efficient than standard FireMaster 607 Blanket and other similar mineral fibre products. This results in lower weight requirements for fire protection applications.

Marine Fire Protection Systems from Thermal Ceramics

Aluminium bulkheads and decks

- Approved for both IMO SOLAS and HSC Code structures (A60 & 60 minute HSC)
- Approvals for HSC structures as thin as 2mm
- Weight as low as 2.45 kg/m³ (30 minutes HSC 2mm aluminium)
- Flexible Blanket installs around profile of structure without complicated cutting or fixing
- Wide choice of systems available



Steel bulkheads and decks

- Low weight
- A60 bulkhead weight 4.8 kg/m² (fire either side)
- Easy and quick to install

Composite bulkheads and decks

- DNV approved systems for 60 minutes fire protection fully compliant with IMO MSC 45 (65) requirements
- Can be applied to a wide variety of composite structures
- Fast and secure fixing system



System (Typical A60 Steel Deck)	Mineral Wool	Standard Soluble fibre products	FireMaster Marine Plus
System Specification and Weight	40mm x 100 kg/m ³ 4.0 kg/m ²	38mm x 96 kg/m ³ 3.65 kg/m ²	45mm x 64 kg/m ³ 2.88 kg/m²
Weight saving achieved using FireMaster Marine Plus instead	28%	21%	

Applications - Offshore & CPI

FireMaster Systems have been providing for offshore platforms and chemical process plants fire protection for over 20 years with references in many major projects.

FireMaster 607 Blanket – the product with high stability at high temperatures

- Tested up to 4 hours in hydrocarbon fire applications
- Tested up to one hour in jet fire application
- Installed with simple butt joints due to its excellent thermal stability

FireBarrier 135 – sprayed refractory cement solutions for hydrocarbon fires

FireBarrier products offer waste-free installation, hydrocarbon fire protection to temperatures as high as 1350°C and a high quality surface finish.

Bulkhead and Deck Fire Protection

FireMaster 607 Blanket offers key benefits for bulkhead and deck fire protection in accommodation and process modules.

- Low weight contribution
- Tested to hydrocarbon fire up to 240 minutes
- Combined fire, thermal and acoustic insulation
- Easy and fast to install

Vessel Fire Protection

FireMaster vessel fire protection solution offers:

- Low weight
- Installation in any ambient temperature
- Combined fire and thermal insulation for vessel
- Non-welded fixing system
- Tested up to 3 hours in pool fires

Applications - Offshore & CPI (continued)

Pipe Fire Protection

FireMaster Blanket is tested for jet fire protection of pipes itself and also in combination with Pittsburgh Corning Foamglass.

FireBarrier products are suitable for fire protection of exposed steelwork and vessel skirts in petrochemical refineries.

Structural Steel Fire Protection

Flexible Blanket is ideal for wrapping complex structures inside modules and has approvals for both cellulosic and hydrocarbon fire protection.

Cable Trays

FireMaster Cable Tray systems are Factory Mutual Approved for 30 minute hydrocarbon (UL 1709) fire protection of control cables. The system has also been tested by Mobil Oil for use in their facilities.

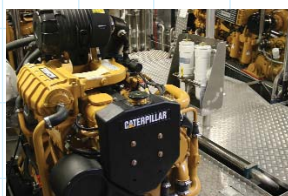
FireMaster systems have comprehensive type approvals worldwide



For more details, please contact your nearest sales office or visit our website: www.thermalceramics.com

Typical Applications - Marine

High Speed Craft



"V Cat" high-speed aluminium passenger ferry (Rodriquez, Italy) uses FireMaster for protection of 3mm thick aluminium structure in the engine room.



"V CAT" engine room insulated with FireMaster Blanket with an optional glass cloth facing. The Blanket can be applied with aluminium foil or glass cloth applied at the factory.



Incat aluminium fast ferry fire protected with Rapid Access Composite structural fire protection panel system. The system is supplied by Colbeck & Gunton Pty and uses Thermal Ceramics Expanding Felt fire protection material.



Cruise Ships



The Worlds' largest single-masted mega yacht, the 75m long Mirabella V composite design built by VT Ships UK uses FireMaster 607 Blanket for structural protection of composite bulkheads and decks.

Radiance Class cruise ships built by Meyer Werft in Germany used FireMaster 607 for A60 fire protection of aluminium and steel bulkheads and decks.

Military Vessels



FireMaster is used in patrol boats, minesweepers, high-speed troop deployment vessels and warships.

The Visby Class Corvette built by Karlskrona Shipyard in Sweden uses FireMaster 607 Blanket for 30 minute structural fire protection of composite bulkheads and decks.

Systems are tested to many international standards and have valid worldwide approvals

Typical Applications - Offshore



Offshore Platform

Sakhalin Molikpaq Tie-In

- A60 internal
- H60 roof – fire on roof insulation under roof (100mm x 96 kg/m³ FireMaster Blanket)
- H60 under deck including weather protection due to water ingress from high waves



Offshore Platform

Shell Tern Module M8

- 60 minutes structural fire protection of steel work



Jet Fire Application

BP Andrew Platform

- Process vessel and pipe work: **LV and Cyrus Separator** : Methanol storage : **HP Flare Drum**
- 15 minutes jet + 60 minutes hydrocarbon fire combined
- 0.5 bar explosion overpressure



Jet Fire Application

Statoil Snøhvit

- FireMaster Water repellent Blanket and Pittsburgh Corning Foamglass
- Pipe and vessel
- Jet fire protection



FPSO

Alvheim FPSO

- Jet fire protection of vessels and pipework with FireMaster 607 and Pittsburgh Corning Foamglass

Bohai FPSO

- 15,000 m² of H120 and H60 fire protection for LQ lined with FireMaster system



Cable Trays - Refinery

SHARQ – Eastern Petrochemical Company, Saudi Arabia

- 30 minutes hydrocarbon fire protection (ASTM 1725/UL 1709)

SASREF - Aramco Shell Refinery, Saudi Arabia

- 30 minutes hydrocarbon fire protection (ASTM 1725/UL 1709)

Mobil St. Fergus Refinery

- 30 minutes hydrocarbon fire protection (UL 1709)



Cable Trays

Falconara Refinery – An (Italy)

- Fire Protection steel cable tray passages:
Electrical cable passages in steel tubes hydrocarbon fire protection 120 minutes



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