FIRETEX® M90 SERIES

FOR CRYOGENIC SPILL AND HYDROCARBON FIRE PROTECTION







WORLD CLASS EPOXY FIRE PROTECTION SOLUTIONS

Sherwin-Williams FIRETEX M90 series of passive fire protection (PFP) materials have been designed to provide fire and corrosion protection against the most aggressive hydrocarbon industry hazards.

Developed to resist hydrocarbon pool fires, jet fires, cryogenic spill and explosions, this range of products is ideally suited for use in refineries, chemical plants, terminals, and offshore applications in the energy sector.

Based on a proven chemistry platform, the FIRETEX M90 series has protected assets and lives for over 30 years. With a wide range of certified testing to global standards, fire and cryogenic spill threats are effectively mitigated. Durability testing has been carried out to industry standards to ensure resistance to harsh environmental exposures, mechanical damage, blast, chemicals, and corrosion. FIRETEX is ideally suited for both new construction and maintenance projects within operating facilities.





PROTECTING LIVES AND YOUR BOTTOM LINE

Recommended uses

- Oil refineries, LNG terminals, petrochemical plants, marine docks, offshore facilities and assets.
- Support structures: vessel skirts, vessel saddles, sphere legs, pipe racks, structural columns and beams.
- Equipment, vessels and tanks.

Application time savings

- Application versatility: plural PFP spray unit and single-leg ram feed spray, along with hand trowel, with convenient kit sizes available for each method.
- Mesh-free option up to two hours. Minimal mesh requirement up to four hours.
- Excellent wet film build properties and edge retention.
- Excellent spray application properties, with minimal finishing required.

Cost effective

- Lower DFT requirements, mesh-free and minimum mesh installation options allow for expedited application.
- Lightweight system saves on transportation and handling costs.
- May be applied in modular yards, shops, and within operating facilities.
- Low lifecycle cost, with minimal to no maintenance required for the design life of the structure.

Extended life of assets

- High-performance coating protection against chemical exposure and within corrosive atmospheres.
- Durability against mechanical damage, blast, and weathering.
- Thermal properties insulate steel from fire and cryogenic exposure, preserving the integrity of the steel.



Unparalleled distribution network



Global industry expertise



Most extensive sales organization coverage



Unmatched technical and specification service

FIRETEX[®] M90/03

Passive fire protection for hydrocarbon pool

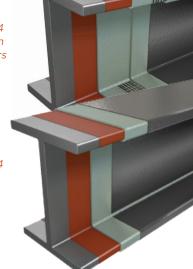
FIRETEX M90/03 is a highly reinforced, borate-free, 100% solids, anticorrosive epoxy fireproofing designed to thermally insulate both carbon steel and galvanized steel during a hydrocarbon pool fire, according to UL 1709, up to four hours. FIRETEX M90/03 offers mesh-free designs for up to two hour fire ratings.

- Topcoat (optional): Full range available from Sherwin-Williams
- Scrim cloth (per certification):
 FIRETEX® H240 mesh (limited use requirement for up to four hours)
- Intumescent: FIRETEX M90/03

- Primer: Full range available from Sherwin-Williams
- Carbon steel:
 Blast clean according
 to SSPC-SP 10

UL 1709 XR664 pool fire design up to four hours

UL 1709 XR664 mesh-free design up to two hours



- Consult Sherwin-Williams for alternative primers and topcoats

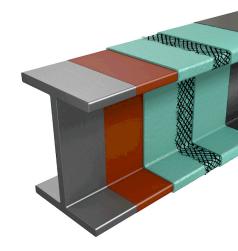
FIRETEX M90/02

Passive fire protection for hydrocarbon pool and jet fire

FIRETEX M90/02 Epoxy Intumescent Coating is 100% solids and certified for over three hours of jet fire protection and up to four hours of hydrocarbon pool fire protection. It is a durable, anticorrosive high-performance intumescent coating that provides resistance to harsh environments within hydrocarbon processing plants and on offshore structures. Its low density and lower thickness requirements make it ideal for offshore platforms for durable fire and corrosion protection. FIRETEX M90/02 is fully tested and certified to global industry standards to effectively mitigate damaging impacts caused from fire and explosion.

- Topcoat (optional): Full range available from Sherwin-Williams
- Scrim cloth:
 FIRETEX J220 mesh
 (gives ½-4 hours protection)
- Intumescent: FIRETEX M90/02

- Primer: Full range available from Sherwin-Williams
- Carbon steel:
 Blast clean according
 to SSPC-SP 10



FIRETEX M89/02 SYNTACTIC EPOXY INSULANT

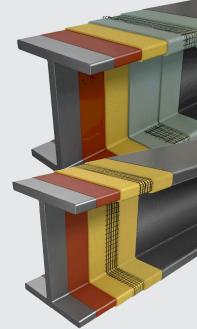
Insulation and cryogenic spill protection (CSP)

FIRETEX M89/02 is a durable, lightweight, corrosion resistant, 100% solids two-component epoxy coating, designed to create a protective thermal insulation barrier on steel members and equipment. FIRETEX M89/02 allows for the use of intumescent fireproofing systems to be applied when the continuous operating temperature of the steel substrate ranges between the dry heat resistance temperature of the intumescent coating and 302°F (150°C). It is also designed and tested to ISO 20088 to prevent thermal cracking of steel during a cryogenic spill.

Insulation: FIRETEX M89/02



CSP only

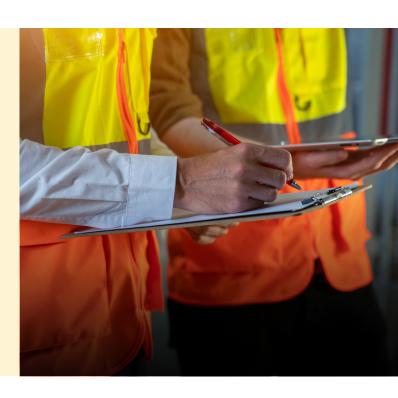


FROM SPEC TO PROTECT

Sherwin-Williams Fire Engineering and Estimation Team (FEET) offers expert advice on optimized fire and insulation coatings solutions for the different elements of the facility. The team comprises of highly qualified engineers who are dedicated only to fire.

The service offered by the team coupled with our third party verified design software solutions is unique within the industry and is available around the clock from our global offices.

- Technical advice
- Training
- Early concept advice
- Bespoke fire protection calculating industry leading software
- Standard FIRETEX design
- Fire engineering design



TESTED AND CERTIFIED

	FIRETEX M90/03	FIRETEX M90/02
100% solids epoxy intumescent	V	v
Durability: Pre-qualified to system 5a under NORSOK M-501		✓
Durability: Pre-qualified to ISO 12944 CX	✓	
Durability: Tested and approved/listed under UL2431	✓	✓
Fire testing: Pool fire (BS476-20&21, ISO834-3) Jet fire (ISO22899-1)	n/a	Up to 3½ hours
Fire protection: Listed under UL1709	Up to 4 hours (mesh free for up to 2 hours)	Up to 4 hours
Fire protection: Type approval under Lloyd's Register Type approval under DNV GL Type approval under American Bureau of Shipping	n/a	Up to 3½ hours
Blast resistance	Tested in increment blast pressures to 4 bar	
Hose stream testing to NFPA 290	v	
Cryogenic spill protection including according to ISO20088-1	Up to 2 hours with M89/02	
Cryogenic spill protection including according to ISO20088-3	Up to 30 minutes	









NORSOK M501 System 5A

THE SHERWIN-WILLIAMS DIFFERENCE

Sherwin-Williams Protective & Marine delivers world-class industry subject matter expertise, unparalleled technical and specification service, and unmatched regional commercial team support to our customers around the globe. Our broad portfolio of high-performance coatings and systems that excel at combating corrosion helps customers achieve smarter, time-tested asset protection. We serve a wide array of markets across our rapidly growing international distribution footprint, including Energy, Water & Wastewater, Bridge & Highway, Steel Fabrication, Flooring, Manufacturing & Processing, Fire Protection, Marine, Rail and Power.