



Hydrocarbon

Fendolite MII

Data Sheet H/F/C-2

Use with:

PSK 101	See Data Sheet H/F/A-4
FT 201 Primer	See Data Sheet H/F/T-2
FT 201 Topcoat	See Data Sheet H/F/T-3
Topcoat 200	See Data Sheet H/F/T-4
Mesh Fixings	See Data Sheet H/F/R-1
Plastic Coated Galv. Mesh	See Data Sheet H/F/R-4

Fendolite MII is a spray applied, single package factory controlled premix, based on vermiculite and Portland cement.

Fendolite MII produces a monolithic coating able to withstand the thermal shocks experienced in a high intensity hydrocarbon fire. Concrete structures in particular, will be protected from explosive spalling when coated with Fendolite MII.

Although low in density, thus significantly reducing dead load, Fendolite MII is highly durable and will not crack or spall under mechanical impact.

Fendolite MII does not release toxic or hazardous fumes, and presents no known health hazards either before, during or after application.

The surface may either be spray textured, roller or float finished.

Fendolite MII is used for application on construction elements such as individual steel or concrete sections particularly where off-site application is required.

Structures protected with Fendolite MII can provide up to 240 minutes fire resistance.

Fendolite MII is for use on structures and vessels in the oil, gas, petrochemical and power industries.



Fendolite MII protects the pipeworks and equipment support structures at the Conoco Humber Refinery

Properties and performance

Colour and finish

Off-white, with a monolithic spray texture, floated or roller finished.

Minimum practical thickness

8mm when unreinforced. 15mm when reinforced.

Theoretical coverage

32m²/tonne at 40mm thickness.

Cure

By hydraulic set.

Initial set

2 to 6 hours at 20°C and 50%RH.

Density

Minimum 680kg/m³ ± 15% (when dry and in place).

Combustibility

Non-combustible to BS 476: Part 4.

Smoke generation

Does not contribute to smoke generation.

Properties and performance (cont)

Thermal conductivity

0.19W/mK at 20°C.

Corrosion resistance

Does not promote corrosion of steel. However, a primed substrate is recommended for long term corrosion resistance, particularly when the structure is to be fully exposed to the elements. See 'preparation'.

pH value

12.0 - 12.5.

Sound absorption

Noise Reduction Coefficient (NRC) 0.35.

Fire resistance

Steel and concrete structures protected with Fendolite MII have undergone fire resistance tests in approved independent laboratories to recognised standards throughout the world including:

UK (to BS 476: Parts 20-21: 1987 Appendix D)

Germany (to DIN 4102)

Holland (Fire Test Procedures for Tunnels GT-98036-1a)

USA (to ASTM E119 UL 263 and UL 1709 - Design No. XR704).

The fire resistance test results relate solely to the constructions tested and test conditions imposed.

Cafco International provides computer based thickness calculations to meet specific fire ratings on receipt of details.

Fire protection thickness

General considerations

Fire protection thickness requirements are often specified in the owner operator's engineering codes of practice. Alternatively, consult the Cafco International Technical Department.

Preparation

Typical substrates

Steel and concrete.

Substrate preparation

The substrate shall be clean, dry and free from dust, loose millscale, loose rust, oil and any other condition preventing good adhesion.

Fendolite MII can be applied to unprimed and primed steelwork.

Prior to the application of Fendolite MII, primed steel should be prepared by the application of **PSK 101**.

Mesh reinforcement

Most fire tests conducted have been carried out without mesh reinforcement, to demonstrate the ability of Fendolite MII to stay in place under the most severe fire conditions. However, for maximum long term in-service durability, the use of lightweight mesh reinforcement is recommended for exterior work and for interior use where vibration or mechanical damage and the possibility of subsequent de-bonding exist.

Application

Initial steps

Application of Fendolite MII must be carried out by an applicator recognised by Cafco International and applied in accordance with the Installation Guide available from Cafco International.

Methods

Mix Fendolite MII with potable water in a suitable mixer and apply by a spraying machine approved by Cafco International.

Fendolite MII may be float or roller finished or left with a spray texture.

A hand applied patching mix is available for minor repairs.

Limitations

Fendolite MII may be applied when the substrate and air temperatures are at least 2°C and rising, but should not be applied if the substrate or air temperatures are less than 4°C and falling. Maximum air and substrate temperature is 50°C.

Substrate temperature should be at least 2°C above dewpoint temperature.

Topcoating

General considerations

Under certain circumstances, **Topcoat 200** and/or **FT 201 Primer** and **FT 201 Topcoat** may be used as protection from frequent wash down, long term chemical spills, or for improved resistance to fungal, algal and bacterial growth.

Packaging, storage, shelf life

Packaging

20kg bags.

Storage

Off the ground and kept dry until ready for use.

Shelf life

12 months maximum.

Environmental

Not readily biodegradable.

Not expected to bioaccumulate.

Not expected to be toxic to aquatic life except at high concentrations.

Do not discharge into drains and watercourses.

Health and safety

Cafco International's activities are conducted with due regard to all statutory requirements with appropriate safeguards against exposing employees and the public to health and safety risks.

A full copy of Cafco International's Health, Safety and Environment Policy document is available on request.

See Safety Data Sheet (including COSHH Regulations) Code Reference **Saf-6**.

Quality assurance

Cafco International operates a quality system in accordance with BS EN ISO 9002: 1994, and has received full accreditation by BSI to these standards.

Operating to these standards means that all activities, which have a bearing upon quality, are set out in written procedures. Systematic and thorough checks are made on all materials and their usage. Test equipment is subjected to regular checks and is referred back to national standards.

The information given in this data sheet is based on actual tests and is believed to be typical of the product. No guarantee of results is implied however, since conditions of use are beyond our control.

Further information



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