



Product Description: BOVIA 271 II is specifically engineered to protect structural steel members exposed to hydrocarbon fire scenarios, including rapid-rise hydrocarbon fires and jet fires encountered in the oil & gas, petrochemical, refinery, LNG, offshore, and power generation industries.

The product has been tested and certified in accordance with **ANSI/UL 1709** for rapid-rise hydrocarbon fire resistance up to 4 hours and has also been successfully tested in accordance with **ISO 22899-1** for jet fire resistance. BOVIA 271 II provides a reliable passive fire protection solution for critical structural steel, helping maintain structural integrity during severe fire events and supporting compliance with international fire safety requirements.

Intended Uses: It is designed to provide fire protection to structural steel beam, columns, bulkheads, underdecks and risers in industrial, petrochemical, oil and gas, offshore and refining industries with excellent durability.

Performance Data:

Parameters	Test Method	Test Results
Finish	-	Textured (Smooth finish with Trowel)
Fire Rating	UL 1709	Up to 4 hours
	(ISO22899), Jet Fire	Up to 4 hours
Density	ASTM E 605	800 (+/- 10%) kg/m3
Durometer Hardness (Shore D)	ASTM D 2240	More than 30 units
Surface Burning	ASTM E 84/UL 723 CAN/ULC-S102)	Flame: 0 Smoke: 0
Combustibility	ASTM E 136	Non-Combustible
Compressive Strength	ASTM E 761	Min 450 psi
Bond Impact	ASTM E 760	Pass
Thermal Conductivity	ASTM C 518	0.129 W/mk
Fungal Resistance	ASTM G 21	0/None
VOC Compliance	EPA Method 24	0.0 g/L



Color

Light Grey

Finish

Textured, if Smooth finish is required, may be done by trowel within 1 to 2 hours of spray application.

Dry Film Thickness (DFT)

The thickness of coating can be estimated by FEUKEM Technical Team based on the UL test report & fire rating requirements (1h, 2h, 3h,4h).

In one pass initially up to 15 mm, to achieve final DFT subsequent pass can be done.

Theoretical Coverage

12 kg/sqm at 15 mm DFT, however final consumption will depend upon wastage during mixing & application

Surface Preparation

The surfaces to be coated shall be clean, undamaged and dry. The surfaces shall be free from mud, oil and grease.

In case of oil and grease on substrate, the suitable solvent can be used for cleaning.

System Compatibility

Primers:

BOVIA 271 II is usually applied directly on steel surface, if primer is required, please follow below instructions.

If primer is applied on the surface, it must not be alkali type. In case applied primer is unknown, alkali test can be conducted at site to know the type of primer.



Considering the alkali nature of fireproofing material, it is always recommended to use epoxy-based primers. The uses of primer must in consultation of FEUKEM engineering team.

Compatible primers with BOVIA 271 II are **FEUPRIME 300, FEUPRIME 1000**, for any other primer, please consult FEUKEM engineering team to check the compatibility.

Top Coats:

After application of BOVIA 271 II, allow the material to cure for a minimum of 24 hours before applying the recommended curing compound, **FEUCURE EX 900**.

Following the application of **FEUCURE EX 900**, allow a minimum of 24 hours before applying the recommended protective topcoat, **FEUPRO 500 or FEUPRO WB 500**, subject to the curing compound being dry and suitable for overcoating.

If a curing compound is not used, the protective topcoat shall only be applied after BOVIA 271 II has completely cured and reached a condition suitable for overcoating.

For detailed information regarding the application, curing, compatibility, and performance of FEUCURE EX 900, FEUPRO 500, and FEUPRO WB 500, refer to the respective Technical Data Sheets (TDS).

The use of curing compounds or topcoat systems other than those recommended by FEUKEM shall be subject to prior review and written approval by the FEUKEM Engineering Department to ensure compatibility and system performance.

Mixing of material

Use mortar mixer which revolves with 45-75 rpm, having the volume of minimum (230 L).

Water Ratio: Add 12-18 L of clean & portable water to (20 kg) of BOVIA 271 II bag.

Add water slowly into mortar mixer & mix it for 2-3 minutes until homogenous sticky type consistency is achieved.

Pot life: Mortar mixer shall be sprayed within 2 hours @ 25 Deg C.



Density

Target dry density is **800 (+/-10%) kg/m³**.

Target wet density required to achieve final dry density is **940-980 kg/m³**.

The wet density may be varied depending upon nozzle pressure.

The density can be checked using calibrated 1 L beaker.

To further understand the procedure to check the densities, please contact FEUKEM engineering team.

Drying & Curing Time

Temperature	Dry to overcoat
10 °C	4 hours
25 °C	2 hours
40 °C	1 hours

Fresh BOVIA 271 II must be protected from rain or running water for 24 hours at 25°C. In low humidity, high temperature, direct sun or wind, the BOVIA 271 II surface should be kept damp for at least 12 hours by applying a water mist or wrapping in plastic sheets to reduce rapid water loss.

Application Procedures

The following instructions are for on-site application only. Please refer below recommendations for better fire protection system:

- The substrate shall be cleaned, free from dust, oil and particles.
- BOVIA 271 II shall be applied by spray machine for better finish.
- The curing time shall be provided as recommended.
- Site and weather conditions are within specification.



- BOVIA 271 II does not have anticorrosive property, in case of adverse environment conditions, Compatible primers & top coats are recommended.
- BOVIA 271 II has been stored correctly.
- BOVIA 271 II shall be applied up to a maximum wet film thickness (WFT) of 12-15 mm in one pass, subsequent coats can be applied to achieve required DFT.
- Application instructions have been read prior to commencement of work.
- The wet density must be checked to ensure the targeted dry density.
- Ensure different base coats are not applied on the same surface.
- Equipment should be clean and free from contaminants or dried material. Wet film gauges are available.

Application Machineries & Equipment's

Hose Pipe – 25 mm I.D. hose with 300 psi minimum bursting pressure. For lengths over 15 m use 38 mm I.D. hose. Do not reduce hose diameter by more than 6.4 mm per 7.6 m unless a tapered conical reducer equipped with swivel fitting is used.

Nozzle Size: 10-12 mm

Pump: 8 hp machine

Compressor: Minimum 130 psi with 22 cfm

Air line: 12 mm I.D

Packaging

20 kg bags



Safety Precautions

This product is for professional use only. The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the coatings correctly and according to FEUKEM technical documentation.

Applicators and operators shall use appropriate personal protection equipment when using this product. This guideline is given based on the current knowledge of the product.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

For further details, please refer BOVIA 271 II MSDC.

Storage

Keep the containers in a dry, cool, well-ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.

When storing and transporting, the temperature must be between 3 °C and 40 °C. Outside of this, it is advisable to use climatic control. Protect from freezing at all times during storage and transport.

Shelf Life

24 months from date of manufacturing, subjected it is stored as per FEUKEM recommendations.

Disclaimer

All information is given in good faith on the result gained from experience and tests. However, all recommendations or suggestions are made without guarantee since supplier does not have any control on site conditions and its uses. Color variation may be possible on the