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RUDRA PAINT

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TECHNICAL DATA SHEET (RP - 111) F R METAL COATING (solvent based)

Product Description

This is a **solvent-based, fire retardant coating** designed to provide up to **120 minutes (2 hours) of fire resistance** on structural steel and metallic substrates. Upon exposure to fire, the coating expands to form a thermally insulating char layer, protecting the substrate and delaying structural failure.

The product is suitable for **interior and exterior** applications where compliance with fire-safety standards is required.

Features & Benefits

- Provides **up to 90 minutes 2 & 4 Hours fire protection** for structural steel.
- Excellent adhesion to primed and properly prepared metal substrates.
- Compatible with a wide range of topcoats for weathering protection.
- Durable solvent-based system with high build application.
- Resistant to humidity and temperature fluctuations.
- Can be applied by **airless spray or brush/roller (small areas)**.

Typical Applications

- Structural steel in commercial buildings, warehouses, industrial facilities, and infrastructure projects.
- Fire protection for columns, beams, and other load-bearing steel members.
- Suitable for both new construction and maintenance projects.

Technical Properties

Property	Value / Range
Appearance (wet film)	Smooth, white/grey finish
Dry Film Thickness (DFT)	As per fire test design – typically 300–1500 µm
Density	~1.30 – 1.45 g/cm ³
Solids by volume	68–72%
Flash Point	> 25 °C
VOC Content	< 400 g/L
Fire Resistance	Up to 120 minutes tested to BS 476 Part 7&8, ASTM D3806.
Application Method	Airless spray (preferred), brush/roller
Recommended Thinner	Xylene or proprietary thinner
Theoretical Coverage	~1.0 m ² /L at 1000 µm DFT (depending on steel size & design)
Drying Time @ 25 °C	Touch dry: 3–4 hours / Hard dry: 12–16 hours
Recoat Interval	Minimum 16 hours
Shelf Life	12 months (in unopened container)
Storage	Store in cool, dry conditions (5–35 °C), away from ignition sources
Colour	Any /Clear

Surface Preparation

- Steel must be **abrasive blast cleaned to Sa 2.5 (ISO 8501-1)** or equivalent.
- Surface must be **clean, dry, and free from oil, grease, dust, and rust.**
- Apply over approved fire retardant primer compatible with solvent based fire coatings.

Application Guidelines

- Stir thoroughly before use.
- Recommended application: **airless spray** for uniform build.
- Minimum pump capacity: 45:1 ratio, tip size 21–31 thou, pressure 2500–3000 psi.
- Apply in multiple coats to achieve specified dry film thickness.
- Ensure correct wet film thickness is achieved using a WFT gauge.
- Topcoat must be applied for exterior exposure or where durability/weather resistance is required.

Safety Precautions

- Contains flammable solvents. Keep away from heat, sparks, and open flames.
- Ensure adequate ventilation during application and drying.
- Use suitable **PPE (respiratory mask, gloves, goggles, coveralls)**.
- Refer to Safety Data Sheet (SDS) for full health & safety information.

Packaging

- Supplied in **20 L pails** and **200 L drums**.

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Certification & Standards

- Tested to **BS 476 Part 7 & 8** , **ASTM D3806**, (NTH Government Lab Test Certificate)
Certified for **Iso:9001: 2015**
- Batch Certificate Also Provided.
- **90 minutes & 2 & 4 hours structural fire protection** depending on section factor and thickness.



Mfg by **RUDRA ENTERPRISE**

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Your Safety is Our Motto

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