# REC COAT 762 FP

## FIRE PROTECTION COATING FOR STRUCTURAL STEEL SECTIONS

### DESCRIPTION

**REC COAT 762 FP** is a water-based, intumescent coating system. Free from halogens, APEO, borates, plasticizers and silicones. Fire resistance rates from R 15 up to R 180 for open and hollow profiles.

### PRIMARY APPLICATIONS

- For indoor use only
- Structural steel profiles as columns /beams /girders /I- /H-sections
- R15–R180 open steel profiles
- R15–R180 hollow sections
- Up to R180 usable without top coat in dry indoor conditions according to BS 476
- Coated steel components shall not be receiving coverings or miscellaneous jackets which prevent the intumescent fire protection coating from foaming/expanding. Only those components may be connected force-fit, which comply with the same fire resistance rate.

### FEATURES & BENEFITS

- Water-based, intumescent coating system.
- Free from halogens, APEO, borates, plasticizers and silicones.
- Fire resistance rates from R 15 up to R 180 for open and hollow profiles.
- Optimal surface appearance by application with airless spraying.
- Approved also for the use on galvanized profiles.
- Suitable for shop application (fast drying).

### TECHNICAL INFORMATION

| | | |
|---|---|---|
| Color | White<br><br>*Any color shade can be provided on request. | |
| Theoretical Coverage | 1.39 l/m² \| 1mm DFT | |
| VOC | Negligible | |
| Critical Temperature | 500°C | |
| Volume solids (ISO 3233) | 72% ± 3% | |
| Specific Gravity | 1.34 | |
| Section Factor (Hp/A) | Open Profile | Hollow Profile |
| | $470m^{-1}$ | $400m^{-1}$ |

### DIRECTIONS FOR USE

#### a. BARE STEEL PROFILES

Prepare bare steel by abrasive blast cleaning to Sa 2½ in accordance with EN ISO 12944-4 / ISO 8501-1, followed by application of an approved and compatible primer. Where abrasive blasting is not practical, manual or mechanical preparation to St 2 / P St 2, as applicable, may be used in accordance with the specified surface-preparation standard and the manufacturer's requirements. After manual/mechanical preparation, remove all loose material, dust, oil, grease, rust and other contaminants. Where specified by the manufacturer, use **REC CLEANER** before application of the primer. The prepared surface shall be clean and dry before primer application.

## b. PRIMED STEEL PROFILES

**REC COAT 762 FP** shall only be applied over a clean, dry, sound and a compatible primer. The compatibility of **REC COAT 762 FP** with any existing or unknown primer shall be confirmed before application. Inspect previously primed surfaces for corrosion, peeling, cracking, impact damage, contamination or other defects. Any damaged or defective areas shall be repaired using the same primer or another primer confirmed to be compatible with the existing system and **REC COAT 762 FP**. Where previously primed steel has been exposed to weather or other environmental conditions for an extended period, check the condition of the existing coating and verify the existing dry film thickness (DFT) before applying **REC COAT 762 FP**. Surfaces that are unsuitable, contaminated or damaged shall be properly prepared and repaired before application.

## c. GALVANIZED STEEL PROFILES

Clean galvanized steel thoroughly to remove oil, grease, dirt, salts, white rust and other contaminants. Prepare the surface as recommended by the manufacturer to ensure adequate adhesion of the coating system. Apply **REC PRIMER** or another approved compatible primer in accordance with the Technical Data Sheet. Any requirement to heat, temper, or otherwise condition galvanized components before coating shall be confirmed with the Technical Department of RECKON CHEMICALS PVT LTD. before work begins.

## d. APPLICATION

Before application, thoroughly mix **REC COAT 762 FP** using a slow-speed mechanical mixer. Avoid excessive mixing speed, which may introduce air into the material. Apply the coating only when the substrate and environmental conditions are within the limits specified in the Technical Data Sheet. Clean application equipment immediately after use with water.

## e. AIRLESS SPRAYING

Recommended material temperature: approximately 20°C for optimum spraying performance. If thinning is required, add a maximum of 3% clean water, or as otherwise specified by the manufacturer's current TDS.

- Recommended operating pressure: 200–250 bar.
- Recommended nozzle size: 0.017–0.025 inch.
- Recommended flow rate: greater than 4 L/min.

Apply the first coat to a primed surface at approximately 500 g/m², corresponding to approximately 250 µm dry film thickness. Subsequent coats may be applied at up to approximately 1,000 g/m² per coat, corresponding to approximately 500 µm DFT, subject to the specified drying conditions and maximum allowable coating thickness. The final coating thickness shall be determined from the approved fire-protection specification/design and the required R-rating, steel section factor (Hp/A), and critical steel temperature. Measure and record the dry film thickness in accordance with the project quality-control requirements.

## f. BRUSHING AND ROLLING

Application by brush or roller may be used for suitable areas, touch-up work and small sections. Use a suitable long-pile/lambskin or foam roller, or a long-bristled brush recommended by the manufacturer. Apply the material evenly and avoid runs, sagging, pin holes and excessive build-up. Multiple coats may be required to achieve the specified dry film thickness.

## g. DRYING AND OVERCOATING

Drying time depends on temperature, relative humidity, coating thickness and air movement. At approximately 20°C and 65% relative humidity, allow at least 24 hours drying time between coats when applying up to approximately 1,000 g/m² per coat, subject to the current TDS. Each coat must be sufficiently dry before applying the next coat. Perform finger nail test or other specified test to confirm adequate drying before overcoating. Lower temperatures, higher relative humidity, increased coating thickness and inadequate ventilation can significantly increase drying time. Protect the coating from rain, condensation, excessive humidity, freezing and other adverse conditions during drying.

## h. TOP COAT

A suitable RECKON top coat may be applied where additional protection from moisture, environmental exposure, cleaning or other service conditions is required. The top coat may also be used to provide the required decorative color. Do not apply the top coat until **REC COAT 762 FP** is fully dried and has passed the required drying test. Under the stated conditions, application should not be earlier than 24 hours.

A top coat is not normally required for dry indoor environments where the steel is not exposed to condensation or moisture, provided this is permitted by the approved coating system. Where steel surfaces are regularly exposed to high temperatures, avoid dark-colored top coats. RECKON top coats are available in RAL and NCS color shades.

### i. GENERAL QUALITY AND SAFETY REQUIREMENTS

- All surface preparation, application, drying and inspection shall be carried out in accordance with the latest Technical Data Sheet.
- Environmental conditions, including substrate temperature, air temperature, relative humidity and dew-point conditions, shall be checked before and during application.
- The substrate shall be at least 3°C above the dew point.
- Required coating thicknesses shall be established from the approved fire-protection design rather than selected solely on the basis of the number of coats.
- Dry film thickness shall be checked using a suitable calibrated coating-thickness gauge and recorded as part of the project quality-control documentation.

## PACKAGING

**REC COAT 762 FP** is available in different quantity and can be provided on request.

## HEALTH & SAFETY

Handle with care. Before and during use, wear all protective gears. For further information, consult Technical Department of RECKON CHEMICALS PVT. LTD Lahore. Follow all local safety regulations.



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