Modern Chemical Industries, S.A.E.
Paints · Coatings | Corniche Embaba, Al Warraq, Giza, Egypt | Established 1978

SOLID FRWX

Water-Based Fire-Retardant Coating for Electrical Cables — Solid Special-Products Line

PRODUCT DESCRIPTION

Solid FRWX is a quick-drying, single-component, water-based fire-retardant coating for the protection of electrical cables, walls, wood, concrete, and steel surfaces. It chars under flame rather than propagating it, limiting flame spread across the coated surface.

KEY FEATURES

- Single-component system, quick-drying and easy to apply
- Water-based, environmentally friendly (solvent-free)
- High flexibility and elasticity once cured
- Effective on concrete, wood, steel, and electrical cables
- Up to 2 hours' fire protection on concrete at 2000-micron dry film thickness

RECOMMENDED USES

- Fire protection for electrical cables
- Walls, wood, concrete, and steel surfaces
- Structural fire protection on concrete beams and columns
- Concrete and cementitious surfaces in fabrication shops

SURFACE PREPARATION

The surface to be coated must be thoroughly cleaned. On new surfaces, good mechanical cleaning or washing is enough to remove dust, dirt, and oil. Required quantity and film thickness depend on the fire protection class and profile section factor needed.

TECHNICAL & PHYSICAL PROPERTIES

Property	Value
Colour, Dry Film	White, or according to MCI color catalog
Finish, Dry Film	Smooth / Matt
Viscosity at 25°C	140 KU, thixotropic
Solids Content by Weight	60% ± 2%
Specific Gravity	1.42 ± 0.02 g/cm³
Theoretical Spreading Rate	1.80 - 2.70 m²/L
Dry Film Thickness	200 - 300 microns/coat
Wet Film Thickness	370 - 555 microns/coat
Shelf Life	18 months in the original sealed container, away from direct sunlight and heat

APPLICATION GUIDELINES

Parameter	Recommendation
Application Method	Airless spray, brush, or roller
Thinning / Cleaning	Water
Thinning	Ready to use when spray-applied; thin up to 10% with water if necessary
Mixing Ratio (by Volume)	One-pack — no mixing required
Airless Spray Pressure	120 - 150 bar (1700 - 2125 psi)
Nozzle Size	0.018" - 0.021"

DRYING TIME

Stage	Value
Touch Dry	1 - 2 hours
Dry to Recoat	2 - 4 hours
Hard Dry / Full Cure	8 hours

Drying time @ 30°C. Temperature, humidity, air movement, film thickness, and number of coats all affect drying time. A scratch test is recommended on any surface after 1 week.

RECOMMENDED PAINT SYSTEM

- Primer: Solid 707 Putty, 1 coat on prepared surface
- Topcoat: Solid FRWX, thickness per required fire protection class
- For electrical cables: number of coats per required fire-resistance duration, with a 3-hour interval between coats

TEST CERTIFICATE

Test certificate provided by an explosion-testing laboratory in Egypt, certifying fire resistance up to 2 hours.

STORAGE

Store in a dry, cool place (5°C - 35°C), under shed and away from direct sunlight, extreme temperatures, and ignition sources. Do not return unused material to its original container. Handle with care and stir well before use.

HEALTH & SAFETY

- Observe all warning and precautionary labels displayed on the container.
- Ensure application takes place in a well-ventilated area.
- Avoid skin and eye contact. Wear overalls, gloves, and goggles where appropriate.
- In case of eye contact, flush immediately with plenty of clean running water and seek prompt medical attention.
- Keep out of reach of children.
- Do not empty into drains or watercourses. Dispose of waste in accordance with local regulations.
- A Safety Data Sheet is available for this product and should be consulted for full handling and disposal information.

The information in this data sheet is given to the best of our knowledge, based on laboratory testing and practical experience. However, as the product is often used under conditions beyond our control, we cannot guarantee anything but the quality of the product itself. We reserve the right to change the given data without notice.