

TechnoCoat[®] Fire Optima 180

High build fully formulated Fire proof coating.

Description:

TechnoCoat[®] Fire Optima 180 is a single component indigenous coating for protection of substrates from Fire, flame and continuous torching. TechnoCoat[®] Fire Optima 180 does not ignite, does not catch fire and hence does not emit any toxic gases. There by reducing and restricting the substrates and base materials from fire there by eliminating and reducing damages and causalities.

Application Includes:

TechnoCoat[®] Fire Optima 180 is recommended for use in the following areas of application:-

- As passive fire protection for structural steel in interior and exterior conditions (Up to C4 conditions ISO 12944-2).
- Suitable for open profile beams and columns, cellular beams and hollow section beams and columns.
- As a repair and touch up coating for damaged areas of freshly applied TechnoCoat[®] Fire Optima 180.

Features & Benefits:

- Fire Resistance
- Scratch Resistance
- Heat Resistance
- Corrosion Resistance
- Easy to clean
- Resistance to solvent rub
- Can be brush or spray applied

Application:

- Prime surface with TechnoCoat[®] ZR Special.
- Allow minimum 4 hrs to dry the primer. Apply first coat of TechnoCoat[®] Coropox-2C on the prepared surface by brush / roller / spray.
- Allow it to touch dry for 4 hrs. If required, apply second coat of TechnoCoat[®] Coropox-2C as above as per the technical data.
- In case of airless spray, use standard equipment having tip size of 0.48 - 0.88 mm and tip pressure 110 - 160 kg / cm²

Applications Instructions:

Surface Preparation

TechnoCoat[®] Fire Optima 180 should only be applied over steel which has been blasted to Sa 2½ (ISO 8501-1) and primed with an approved primer. Remove oil and grease etc. thoroughly with suitable detergent. Remove salts and other contaminants by high pressure fresh water cleaning. Under restrictions St 3 (ISO 8501-1) prepared steel can be acceptable, consult the application instructions for the requirements. Galvanised steel substrates may require other surface preparations, consult the application instructions for detailed information.

Application Conditions

Recommended temperature between 10°C - 50°C but never below 5°C. Maximum relative humidity should not exceed 80% during the application and/or drying. In confined spaces provide adequate ventilation during application and drying. Surface temperature must be above 0°C and minimum 3°C above dew point.

Mixing

Stir drums of each component of TechnoCoat[®] Fire Optima 180 thoroughly to a homogenous and uniform mix a slow speed mixture (approx.400rpm) fitted with a suitable mixing paddle. Ensure that there is no entrapped air.

Typical Properties at 30°C:

Property	Method	Result
Wet Film Thickness, micron	ASTM D 4414	400
Elongation, %	ASTM D 638	28
Tensile Strength, MPa	ASTM D 638	3.94
Hardness, Shore A	ASTM D 2240	75 ± 5
Specific Gravity, Mix, 30 °C	ASTM D 1457	1.50 ± 0.05
Flash Point, °C	ASTM D93	>30
Pot Life, hrs, 30 °C	ASTM D 2471	4
Adhesion pull-off, MPa	ASTM D 4541	8 ± 0.5
Resistance to Micro-organisms	ASTM G 21	Passes
Flexibility	ASTM D 522	Good
Weather-ability, 1000 Hrs. QUV	ASTM G154	Good
Immersion test, 30 days	AWWA C-210	No blistering / peeling / disbanding
• DIW		
• 1% H ₂ SO ₄		
• 1% NaOH		
Salt Spray, 1000 hrs, @ 300 micron DFT	ASTM B 117	Excellent
Water Resistance, Immersion- 7 days	ASTM D 870	Passes
Abrasion Resistance 1000 CIs CS 10 , mg	ASTM D 4060	112
Dielectric strength, V/mil	AWWA C 210	>250
Cathodic disbandment, 30 days, mm	AWWA C 210	<10

Application Temperature, °C				Resistance Temperature, °C		
Condition	Application	Surface	Ambient	Condition	Continuous	Occasional
Minimum	10	10	10	High	95	120
Maximum	49	50	41	Low	-10	-25

Packaging

TechnoCoat® Coropox-2C is supplied in 20 kg premeasured packaged composite packs. Packaging size may vary subject to local regulations and requirements.

Storage

24 months from date of production if kept in undamaged and unopened original sealed containers and store at protected area from direct sunshine in dry and cool condition at temperatures between 10°C-30°C.

Cleaning

Tools and equipments should be cleaned within the pot life of the grout with **TechnoFix® Eco Cleaner**. Cured material can only be removed mechanically.

Additional Information: Techno Builders Solutions® By Sterling Technotrade India Pvt.Ltd - The Specialist Construction Chemicals Company® range of associated products includes high performance concrete Admixtures, Adhesives, Protective Coatings, Concrete Repairs, Industrial Flooring, Grouts & Anchors, Joint Sealants, Surface Treatments, curing compounds, repair mortars, release agents, Grinding Aids & Waterproofing.

*Separate datasheet are available on these products.

	Curing Schedule			
Temperature	Touch Dry, hr	Recoat		Full Cure, Days
		Minimum	Maximum	
10 °C (50 °F)	10	12	30	15
30 °C (86 °F)	4	8	30	7
50 °C (122 °F)	1	3	24	3

Colour	Black / Semi-gloss	Application	By Brush / Roller /Airless Spray
Theoretical Coverage, m ² / L*	2.5 DFT 300 micron	Solid % by volume	75 ± 5
Chemical / corrosion / abrasion	Excellent	Usable temperature, °C	Up to 75
		Mixing ratio, by volume	3 : 1

Health and Safety instructions

Some people are sensitive to resins so gloves and a barrier cream should be used when handling TechnoCoat® Coropox-2C. If contact with the resin occurs, it must be removed, before it hardens, with a resin removing cream. Follow by washing with soap and water. Do not use solvent. The use of goggles is recommended but should accidental eye contamination occur, wash thoroughly with plenty of water and seek medical treatment immediately.

Ensure adequate ventilation in volume and pattern in working area and do not smoke during use. Consider property in proximity of the application area to prevent loss or damage. Protect your jobsite from unauthorized persons. Store all materials and equipment safely and out of reach of children and animals. Observe container labels, SDS, applicable laws and regulations and all instructions before using the product and equipment.

*Further protection: emergency showers and eyewash stations. Get immediate medical attention as needed.

Product only for professional use.

Disclaimer: The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

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