STERLING® TECHNOTRADE
The Specialist Construction Chemical Company

TechnoCoat® CarboElastic1K (M)

High performance, elastomeric, acrylic Protective decorative And Anti-carbonation coating for concrete and masonry.

Description:

TechnoCoat® CarboElastic1K (M) is a single component, high build, decorative protective and Anticarbonation coating based on an advance acrylic micro polymer resin binder that cross-links to give excellent adhesion to most building substrates. The cured membrane is elastomeric, enabling it to facilitate movement in the substrate and to bridge hairline cracks, giving outstanding durability over a long service life. **TechnoCoat® CarboElastic1K (M)** coating is suitable for use on exterior and interior surfaces of concrete and anti-rust primed steel.

TechnoCoat® CarboElastic1K (M) protects concrete from aggressive elements like carbon dioxide, UV rays. For effective anti-carbonation protection, a two-coat treatment is recommended after the application of the silane siloxane-based impregnating primer.

Application Includes:

TechnoCoat® CarboElastic1K (M) is recommended as Anticarbonation, protective & decorative coating for:

- Bridges, flyovers, subways, underpass, stadiums
- RCC Overhead water tanks
- Concrete structures that are exposed to atmospheric conditions
- All types of cementitious exterior masonry and plastered surfaces
- Can also be applied on shot blasted & primed steel
- Residential & Commercial Buildings
- Chimneys, cooling towers and silos
- Jetties and berths.
- Industrial buildings and power plants.

TechnoCoat® CarboElastic1K (M) is not recommended for application in areas likely to be submerged in water and on floors subjected to traffic.

Features & Benefits:

- **Anti-Carbonation-** Excellent barrier to penetration & attack of carbon dioxide, water, sulphates and chloride ions
- **Protection-** Protect the structures from adverse marine and coastal environments
- **Adhesion-** Excellent adhesion to substrate, with a high film build-up
- **Microorganism resistance-**Excellent algae / fungal resistance
- **Durability-**tough , flexible & durable coating
- **Ease of application** – Single component, apply straight from the container, by brush, roller or spray.
- **UV resistant-** suitable for exposure.

Applications Instructions:

Substrate Preparation

Correct substrate preparation is critical for optimum performance. The surface to be treated must be thoroughly cleaned. Remove all traces of formwork, release agent, grease, efflorescence, laitance, algae or other contaminant that may prevent proper adhesion. Remove organic materials by scraping, brushing or high pressure water cleaning. Spores must be treated with a suitable fungicide sterilizing agent and carefully rinsed. On non-decorated concrete surface containing blow holes and/or minor irregularities, and on some rough rendered or dashed surface, it is advantageous to use **TechFin® 1C-FC** (Single component Polymer modified fairing coat and pinhole filler) to close the surface, thus preventing the possibility of pinholes occurring. Cracks wider then hairline should be patched using **TechnoSeal® EPA1500** before treatment.

Priming

Prime the surface using **TechnoSeal® FlexiPrime WB** as primer. Allow the primer to dry for 2-3hr (at temp. >25°C) before applying **TechnoCoat® CarboElastic1K (M)**. At lower temperatures, allow a longer time to dry.

Mixing

TechnoCoat® CarboElastic1K (M) is a one component product and should always be mixed thoroughly prior to use.

Typical Properties at 25°C:

Aspect	Viscous Dispersion	Dry film thickness	300 microns in 2 coats
Color	White, grey, and can be available in different colors	Solid Contents	By weight 70 ± 3% By volume 65 ± 3%
Touch Dry Time	30-60 min	Density	1.40 ± 0.05 gm/cm3
Full cure	7 Days	Application temperature%	5°C to 40°C
Over Coating time between consecutive coats	2 hr @ 35°C 4 hr @ 25°C	Elongation (ASTM D 638)	60%
Application	Brush/Roller, Conventional Spray & Airless Spray	Pull off Bond Strength (ASTM D 7234)	>1.5 MPa or Concrete Failure
Hardness Shore A, ASTM D 2240	>40	Tensile strength, (ASTM D 2370)	>1.0 @300 micron
Water Vapour Transmission(ASTM E 96) @300 micron (gm/m²/24hr)	> 70	Equivalent air layer thickness, R@300 micron	> 50m

*All technical data stated herein is based on tests carried out under laboratory conditions.

Design criteria

One or two coats of **TechnoCoat®CarboElastic1K (M)** are generally required, dependent largely on the nature and profile of the substrate. **TechnoCoat®CarboElastic1K (M)** is recoatable generally between 2-4 hrs after the application of first coat. At elevated temperatures, the recoatable and overlay times will be reduced.

Coverage

The coverage rate is strongly influenced by the roughness and porosity of the substrate. Minimum recommended rate of application for TechnoCoat®CarboElastic1K (M) is 0.45 Kg/m2 /coat. Each pack of 20kg is sufficient for an area of 22 m2 to achieve the recommended final dry film thickness of 300µ.

Cleaning

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

Packaging

TechnoCoat®CarboElastic1K (M) is supplied in in n 20kg containers. Packaging size may vary subject to local regulations and requirements.

Storage

12 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.

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.

Application

Apply **TechnoCoat®CarboElastic1K (M)** in one coat using airless spray to achieve a wet film thickness of 650µ or in two coats each of 325µ WFT using roller or brush, with the second coat applied 2- 4 hrs after the first and at right angle to it. The prepared substrate must be air-dry when the first coat is applied. Where a textured finish is required use a medium nap roller to apply the product and over roll with a textured roller to give the desired finish in one direction only.
Only apply **TechnoCoat®CarboElastic1K (M)** when the ambient temperature and substrate temperature are at least 5°C, and will not fall below 5°C within 24 hours. To avoid condensation which influences the adhesion negatively, surface temperature during application should be at least 3°C higher then the dew point.

Low temperature working

The minimum application temperature is 5°C. The material should not be applied when the substrate and/or air temperature is 5°C and below.

High temperature working

At ambient temperatures above 30°C, the material should be stored in the shade or in an air-conditioned environment for 12 hours before use

Limitations

Reinforcement rods and other sharp materials should not be dragged over the **TechnoCoat®CarboElastic1K (M)** membrane, as this can puncture the same. **TechnoCoat®CarboElastic1K (M)** shall always be used WITHOUT dilution.
Do not apply coating thickness more than 300 microns in one go if applying by roller or brush; For higher coating thickness apply multiple coat. There should not be any rain during and after application of final coating for at least 6-8 hours
Not suitable for continuous immersion like basements, water tanks/reservoirs and any other liquid storage tanks.

Health & Safety Instructions

Some people are sensitive to resins so gloves and a barrier cream should be used when handling **TechnoCoat®CarboElastic1K (M)**. 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.

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