



# TechnoCoat® CarboElastic1K (S)

High build Solvent based aliphatic acrylate protective decorative  
And Anti- carbonation coating for concrete and masonry.

## Description:

**TechnoCoat® CarboElastic1K (S)** is a single component, solvent-based aliphatic acrylate coating for external and internal use over a variety of concrete and masonry substrates. It penetrates into the porous concrete substrate, producing an exterior masonry impermeable coating that also prevents chloride ion ingress and exceeds all the requirements of a coating that resists carbonation.

**TechnoCoat® CarboElastic1K (S)** comprises the composition of aliphatic acrylate solution polymer, properly selected & graded inert fillers, lightfast pigments & additives that are specially formulated to protect reinforced concrete and other masonry cementitious substrate that is directly exposed to atmospheric conditions like "UV radiation, high humidity, heavy rain, industrial pollution & carbonation". 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 (S)** 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 (S)** 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

## Applications Instructions:

### Substrate Preparation

Correct substrate preparation is critical for optimum performance. New concrete / plastered surfaces must be allowed to cure for at least 6-8 weeks before coating. 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 than hairline should be patched using **TechnoSeal® EPA1500** before treatment.

### Application Priming

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

### Application -Finishing Coat

- Apply two neat coats of **TechnoCoat® CarboElastic1K (S)** without any dilution.
- Ensure that over coating is done when the first coat is dry for 5-6 hrs

### Mixing

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

### Typical Properties at 25°C:

Aspect	Free flowing liquid	Total dry film thickness	150 microns
Color	White, grey, and can be available in different colors	Volume solids	35 ± 3%
Touch Dry Time	30-60 min	Specific gravity	1.24 ± 0.05
Full cure	7 Days	Application temperature %	5°C to 40°C
Over Coating time between consecutive coats	5 hr @ 30°C	Carbon dioxide diffusion resistance	> 250 m equivalent thickness of air
Application	Brush/Roller, Conventional Spray & Airless Spray	Freeze/thaw salt scaling (50 cycles)	Unaffected
Theoretical Application rate for TechnoSeal® FlexiPrime SB		0.2 litre/m <sup>2</sup> per coat.	
Theoretical Application rate for TechnoCoat® CarboElastic1K (S)		0.15 litre/m <sup>2</sup> per coat.	

- Ease of application – Single component, apply straight from the container, by brush, roller or spray.
- UV resistant- suitable for exposure.

## Design criteria

The coating should be applied in two coats at a wet film thickness of not less than 175 microns per coat. To achieve the correct protective properties, **TechnoSeal® FlexiPrime SB** and **TechnoCoat® CarboElastic1K (S)** must be applied on to the substrate at the coverage rates recommended.

## Specification clauses

Protective / decorative surface coating

The protective coating shall comprise **TechnoSeal® FlexiPrime SB**, a penetrating silane/silaxone primer and **TechnoCoat® CarboElastic1K (S)**, a single component aliphatic acrylate coating. The total dry film thickness of the coating shall be not less than 150 microns and shall be capable of providing carbon dioxide diffusion resistance and the depth of carbonation shall be Nil, when tested at 24 hours by the accelerated carbonation test. The permeability shall be Nil when tested at 24 hours as per BS 1881

## 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 (S)** is supplied in in 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 (S)** 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 (S)** 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 than 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.

## Limitations

Reinforcement rods and other sharp materials should not be dragged over the **TechnoCoat® CarboElastic1K (S)** membrane, as this can puncture the same. **TechnoCoat® CarboElastic1K (S)** 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 (S)**. 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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