

# CARBOSHIELD PRIME

## Solvent Based Silane-siloxane Primer for Anti-carbonation System

### Description:

CARBOSHIELD PRIME is a single component solvent based penetrative primer/sealer, based on silane – siloxane resins for concrete and masonry substrates.

The chemistry of silane-siloxane is to react with moisture and water content of substrate to form a hydrophobic capillary blocking high quality, water repellent breathable seal. The applied coat allows substrate to breathe and it is highly recommended for alkali substrates.

CARBOSHIELD PRIME can be applied to concrete structure, cement plasters, bricks, light weight concrete, porous natural stones, and natural stone facades.

### Applications:

CARBOSHIELD PRIME used as a penetrative primer/sealer for anti-carbonation coatings systems at:

- Car parks, bridges.
- Protection against the salt effects.
- Primer for anti-carbonation system to prevent CO<sub>2</sub> and chloride ions ingress.
- Primer for acrylic topping (anti-carbonation coatings or weather shield coatings) for porous surfaces.
- As a concrete sealer on a variety of surfaces such as EIFS System, colored plaster and exposed aggregate.
- Can be applied as a water repellent compound for sealing porous surfaces.

### Advantages:

- High penetration and water repelling efficiency.
- Prevents carbon dioxide and chlorine ingress.
- Resistant to UV, weathering and Freeze/thaw cycles
- Integral application, durable.
- Ease of application, applied manually or by a manual spray pump

### Instructions for Use:

#### Surface Preparation:

The surface of the concrete or plaster must be clean, solid, free from grease, and totally dry to guarantee maximum penetration. Oil or grease stains must be completely removed. All necessary repairs or crack filling should be completed before start of application.

Surfaces with salty efflorescence must be cleaned mechanically or rinsed with water. Allow surface to totally dry, before proceeding with the application

New concrete must be cured before applying CARBOSHIELD PRIME. All concrete curing compound must be mechanically removed, along with any foreign material.

#### Mixing:

Product is ready to use directly. It does not require thinning or other special preparations prior to application.

#### Application:

CARBOSHIELD PRIME must penetrate deep enough for greatest protection. To determine the ability to surface penetrate, apply on a smaller area first and observe if any excess liquid residue on surface that indicates improper penetration. In spite that one coat application will be sufficient, it is recommended to apply two coats to guarantee complete deep protection especially for porous surfaces. The main indicator of full saturation is the tearing of the product while applying. However, Excess material remaining on the surface after application should be spread out evenly or wiped off.

CARBOSHIELD PRIME is applied directly to the substrate with a brush, roller, or spray. Apply a sufficient coat of CARBOSHIELD PRIME by roller, brush or manual spray machine (which is highly recommended for wide areas) ensure proper coverage of first coat in a rate of 0.15 liter per square meter, then apply second coat (wet on wet application) if surface is porous. The main indicator of full saturation is the tearing of the product while

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applying. Apply the subsequent coating of CARBOSHIELD Anti-carbonation coating within 3 hours after applying CARBOSHIELD PRIME.

## Standards:

CARBOSHIELD PRIME conforms to:

- ASTM C309, ASTM C1315, ASTM D2697, ASTM D70, ASTM E514
- AASHTO M 148, Type 1, Classes A & B

## TECHNICAL PROPERTIES

Color	: Liquid
Density	: 0.8 Kg. / Lt.
Drying Time	: 3 hours
Chloride permeability	: NIL
Flammability	: Flammable
Flash point	: 38°C
Solid Content	: 27%
Chloride ingress	: 1%
Penetration through substrate	: 4-8 mm
V.O.C.	: >50 g/l

## Packaging:

CARBOSHIELD PRIME is supplied in 20 liter jerrycans

## Shelf Life:

CARBOSHIELD PRIME can be utilized within 12 months of production date if stored in proper conditions in unopened original packing.

## Cleaning:

Clean tools and equipment with SOLVENT before material hardens.

## Coverage:

CARBOSHIELD PRIME coverage rate 7.0-9.0 square meters per liter per coat dependent highly on surface type and porosity, testing the consumption rate by a sample application is highly recommended.

## Health and Safety:

- Use goggles and gloves during application. Do not breathe vapor of products.
- Use only in well ventilated areas.
- Avoid contact with eyes or skin.

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This technical data sheet is not considered as local building codes. It shall be used as general reference for the product, based on our current knowledge and experience. However the company do not accept any liability arising from the use of its products as it has no direct control on how and where the product is applied.

