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

SOLID ANTI CARBONATION

Water-Based Elastomeric Anti-Carbonation Coating — Solid Special-Products Line

PRODUCT DESCRIPTION

Solid Anti Carbonation has been formulated to confer long-term protective and decorative properties to concrete and masonry surfaces. The micro-porous structure of the coating acts as a barrier to the ingress of chlorides, carbon dioxide, and other acid gases, but allows the passage of water vapour from the substrate. Its elastomeric nature ensures good crack-bridging properties in case of structural movement.

KEY FEATURES

- Easy to clean
- Excellent ultraviolet and weathering resistance
- Single pack and easy to apply
- Protects substrates from carbonation
- Highly resistant to freeze-thaw cycling
- Elastic nature with crack-bridging properties
- Allows the structure to breathe
- Water-based and non-toxic
- Range of colors available

RECOMMENDED USES

- New and existing concrete and masonry structures requiring protection from water, carbon dioxide, sulphur
- Car parks, commercial and industrial buildings
- Bridges, subways, high-rise flats, and roofing

SURFACE PREPARATION

Substrates shall be clean, sound, and free from contaminants such as oil, grease, moss, algae, dust, and any existing loose or flaking paintwork. Concrete surfaces shall be fully cured and free from laitance, mould release oils, and curing compounds. Mould or algae shall be removed with a proprietary fungicidal wash. High-pressure water jetting may be deemed necessary for heavily contaminated surfaces. Blow holes or pitting on the surface shall be filled using Surfacer.

TECHNICAL & PHYSICAL PROPERTIES

Property	Value
Colours	White
Finish	Eggshell
Solids Content by Volume	56%
Theoretical Spreading Rate	Nominal 5 m²/L per coat; a second coat may be applied at the
Wet Film Thickness	180 microns per coat
Dry Film Thickness	100 microns per coat
Tensile Strength	3.7 MPa @ 20°C
Carbon Dioxide Diffusion Coefficient	965,000
Equivalent Air Thickness, R	Greater than 200 m @ 300 microns dry film thickness
Water Vapour Transmission Rate	12 g/m²/day
Service Temperatures	-30°C to +80°C
Elongation at Break	350% @ 20°C
Shelf Life	18 months in the original sealed container, away from direct sunlight and heat

APPLICATION GUIDELINES

Parameter	Recommendation

Application Method	Brush, roller, or airless spray
Priming	Recommended on porous substrates — dilute with up to 20% by
Equipment Cleaning	Clean equipment with water, or a mixture of water and Toolclean,

DRYING TIME

Stage	Value
Touch Dry	1 - 3 hours (dependent on ventilation)
Through Dry	2 - 16 hours
Over-Coating Interval	16 hours minimum

Two-coat treatment at the nominal rate achieves the 200-micron dry film thickness necessary for anti-carbonation properties. Where crack-bridging properties are particularly important, a minimum dry film thickness of over 300 microns is recommended.

RECOMMENDED PAINT SYSTEM

- Priming coat (on porous substrates): Solid Anti Carbonation diluted up to 20% with clean water — 1 coat
- Topcoat: Solid Anti Carbonation — 2 coats at 5 m²/L

LIMITATIONS

Do not apply at temperatures of 3°C or less, or if there is a risk of frost. Compatibility testing with existing paint coatings must be carried out prior to over-coating.

STORAGE

Store in dry conditions, out of direct sunlight, at temperatures between 10°C and 25°C. Protect from frost.

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.