

An impregnating sealer designed to protect concrete from water surface exposure and penetration.

Product Information

IMRAE manufactures a complete line of Impregnating Sealers designed for various surfaces that repels water immediately upon cure, and provides a long term protection from efflorescence from various salt build-ups for many years.

CoatMasters® CM2007, CM3007, and CM4007 are novel product technology made from new generation of oligomeric silicon emulsions and other trade secret blends designed to protect concrete from salts, moisture, and other fluids. All products are compatible with most type of major cementitious mix design compositions from Type I, II/V, and III formulations.



The upper brick's right side area was coated whereas the left area was uncoated, and then immersed in water for a period of 7-days per ASTM C-76 for efflorescence testing. Looking at the upper brick, on the left edge shows signs of efflorescence beginning to occur, while the coated side remains clear and closely matches the

original appearance and color of a new brick, shown in the photograph (lower brick).

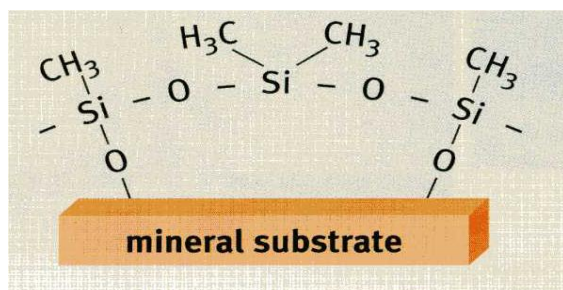
Additional benefits as a result also includes excellent color retention and uniformity, provides resistance to bacteria growth, mildew, and fungus formation on damp areas.

The silicones or silanes used in the hydrophobisation of construction or construction materials can be subdivided into three classes.

- Monomeric alkyl alkoxy silanes
- Oligomeric alkyl alkoxy siloxanes
- Polymeric siloxanes

All three types form a 3-dimensional resin like network after application and curing. Their chemical stability to the silicate components of building materials produces a stable and durable bond to most mineral substrates. At the same time, the alkyl groups orient themselves towards the exterior (air) side and protect

the surface, acting rather like microscopic umbrellas to protect against the penetration of humidity.



Environmentally and Regulatory compliant water based emulsions.

Growing environmental consciousness and official regulations demands low VOC or no-VOC on various types of coatings in general. **CoatMasters®** line of Impregnating Sealers are designed to have very low VOC's, which very well meets Rule 1113 of the South Coast Air Quality Management District's requirement for Waterproofing Concrete / Masonry Sealers of 100 grams/liter maximum which took effect on July 1, 2006

Performance Characteristics

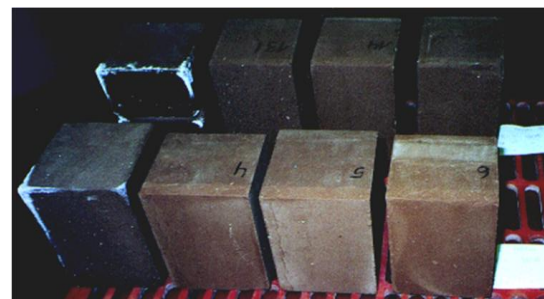
Benefits when used as an Impregnating Coating:

- Eliminates efflorescence effect from cementitious composition.
- UV stable and non-degradable from long term exposure.
- Provides excellent water repellency from water and salt water solutions.
- Reduced salt transmission and chloride ion penetration on rebars, thus providing additional corrosion protection.
- Excellent freeze thaw stability greatly reduces tendency for spalling.
- Maintains natural appearance of any cementitious substrate materials.
- Protects structure from various harmful growths of mosses, fungi, and algae.
- VOC compliant < 100 grams / liter, meets AQMD Rule 1113 for impregnating coatings.

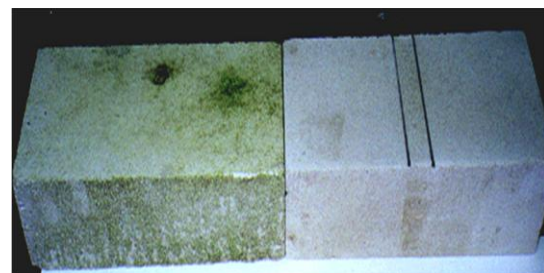
Meets ASTM Performance Standards:

ASTM E514-90 – Determines resistance to water penetration and leakage through unit masonry subjected to wind-driven rain.

ASTM C-666 Determination of resistance of concrete to rapid freeze thaw cycles and thawing (50 cycles).



Efflorescence Testing (Black Bricks Uncoated)



Bacteria Testing 3-Months Weatherability Exposure

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION:

CoatMasters® line of Impregnating Sealer are designed for use as a penetrating system and functions as a water and oil repellent for treating masonry surfaces. This water based system is made up of advanced oligomeric silicone emulsion mixtures suitable for use on various grades of alkaline mineral substrates. Formulating specific products for specific applications, these products can be used for treating porous and non-porous materials of various surfaces ideal for new building construction, project rehabilitation and/or restoration.

CM2007- The product is recommended for use on medium to heavy porous precast concrete, clay roof tiles, exterior plaster, calcium silicate brick, light concrete, natural stone, clay brick, and terracotta.

CM3007 – The product is recommended on non-porous up to light porous precast concrete, GFRC, terrazzo, tiles, and other similar non-porous type surfaces.

CM4007- The product is recommended for porous surfaces requiring water stain protection with slight sheen for ease of cleaning. Surface testing application is recommended due to possible darkening of color, prior to actually using the product.

CM Impregnating Sealers provides long lasting protection against water vapor permeability, and resistance to staining and/or color deterioration. The product will naturally protect color, and continuously provide a breathable porous substrate. Additional benefits include excellent water repellency, greatly minimize spalling, and have a very low odor for ease of application by brush, roll, flow, and/or spray.

TECHNICAL DATA:

Appearance of Liquid: Opaque milky liquid
Specific Gravity: 0.995 – 0.997
pH: 7.5 – 8.5
Flash point, °C / °F: 90 / 194
Active substance content: 80%
Freeze thaw limit stability, °C / °F: 0 / 32
Shelf Life: 1-Year
Meets Federal and State VOC limit requirements for volatile organic components (VOC). Complies with South Coast Air Quality Management District (SCAQMD) VOC limit.

AREA COVERAGE:

Various substrates have different porosity conditions, and the estimated coverage spread for a gallon is based on actual testing. Actual test results may vary depending on actual porosity condition of the substrate applied. The list below provides the area coverage in square feet (sq. ft.) for 1-gallon:

CM2007 / CM3007:	Precast and Light Concrete: 125 – 150 sq. ft.
CM2007:	Interior Plaster: 150 – 175 sq. ft.
CM2007:	Calcium Silicate Bricks: 100 – 150 sq. ft.
CM2007:	Natural Stone: 80 – 100 sq. ft.
CM 2007:	Terracota: 150 – 200 sq. ft.
CM2007 / CM3007:	GFRC: 200 - 250 sq. ft.
CM3007:	Tile / Terrazo: 250 - 300 sq. ft.
CM4007:	Clay Roof Tiles: 200 – 250 sq. ft.
CM4007:	Clay Bricks: 150 – 200 sq. ft.

SURFACE PREPARATION:

The surface to be applied must be free from any dirt or any type of foreign materials that will impair bonding to substrate. The material can be applied on either dry or slightly damp surfaces. However, excessive moisture can affect impregnating performance thus reducing treatment efficiency. For best results thoroughly clean the area to be applied, highly recommended for rehabilitated and reconditioned type surfaces.

Use of material requires knowledge of standard safety practices and good protection for areas being applied, keep off children and pets around the work area. Keep good air ventilation if used indoors. The material is ideally applied in fairly ambient temperatures below 100 °F.

If planned to use in warmer conditions, spray application would help ensure better spread coverage. Not recommended to be applied on temperatures below or near freezing temperatures 32 °F (0 °C). This will cause the liquid to freeze.

PRODUCT APPLICATION:

For spray applications, the product can be both applied either by spray atomization or airless techniques. Please follow recommended spray pressure application, and optimize when desired coating is achieved when using either fan or cone tips.

Atomized Sprayers: 30-50 PSI inlet air pressure.

Airless or Assisted Air Sprayers: Max 50 PSI for inlet air to provide 10 PSI spray on tip.

Always maintain good saturation of the substrate, depending on the porosity successive coatings may be needed to ensure good penetration. Do no over coat when material over runs the substrate, this is a sign of saturation.

STORAGE AND DISPOSAL:

The product must be stored in a cool and dry place, always seal container after using. The shelf-life of the product is atleast 1-year in 77 deg F storage condition, and longer depending on conditions. Avoid the material from freezing, before using mix the product thoroughly until appearance is homogenous in appearance. Empty containers must be disposed according to you local city, state, and federal guidelines. Do not throw liquid portions to any drains, avoid spills, and always protect the environment.

PACKAGING:

The product is available is available in 1-gallon F-type, 5-gallon, and 55-gallon drums (1-gal net = approx 8.30 lbs) .

TECHNICAL SUPPORT:

Technical service support is available to answer any questions regarding other product performance characteristics, safety, and product application with no obligation. Please call (951) 413-0240, and ask for Technical Service Support Pacific time 8 AM – 5 PM.

DISCLAIMER:

The information and recommendations made are on our own studies and research that are believed to be accurate. However, no guarantee of their accuracy is given mainly due to various variations caused by actual application and substrate conditions the material is used. The customer must conduct its appropriate testing to ensure compatibility, and suitability for all its intended use.