

CoatMasters®

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TECHNICAL DATA SHEET

PRODUCT DESCRIPTION:

CM 2007R is an advanced low VOC formulation designed for use as a breathable “reactive” penetrating sealer, primarily used to prevent and reduce chloride absorption and acts as a chloride screen. An effective water repellent for treating various types of masonry surfaces and reduction of efflorescence. This waterbased sealer is made up of advanced oligomeric alkyl-alkoxysilane based emulsion mixtures suitable for use on various grades of alkaline mineral substrates, ideal for treating porous building materials (i.e. horizontal and vertical) on various surfaces of newly constructed, rehabilitated, or restored conditions

CM2007R is approved for use by DOT’s for treating reinforced concrete bridge structures, post-tension design concrete within and nearby ocean where carrying air-salt moisture is expected. The treatment of coating on high elevation is highly recommended and can be coated and painted over by other waterbased architectural finishes. For assistance on planned post coating or painting application, please contact our Technical Service Support team.

CM 2007R provides long lasting protection against other anion and cation salts, and resistance to staining and/or color deterioration. The product will naturally protect color, and continuously provide a breathable porous substrate. The product can be applied on precast concrete, clay roof tiles, exterior plaster, calcium silicate brick, light concrete, natural stone, clay brick, and terracotta. Additional benefits include excellent water repellency, minimized spalling, and low odor, enabling ease of application by brush, roll, flow, and/or spray.

TECHNICAL DATA:

Appearance of Liquid: Opaque milky liquid

Specific Gravity: 0.986 – 0.990

pH: 5.50 – 6.50

Flash point: 90°C / 194°F

Active substance content: 80%

Freeze thaw limit stability: 0°C / 32°F

Shelf Life: 1-Year

Meets Federal EPA and State VOC limit requirements for volatile organic components (VOC). Complies with South Coast Air Quality Management District (SCAQMD) for reactive penetrating sealer of 350 grams/li VOC limit.

NCHRP 244 – Chloride Penetration Test

NCHRP 244 – Perform as Chloride Screen

ASTM C97-18 Water Repellency

ASTM E96-16 Water Vapor Transmission

ASTM C666 – Freeze Thaw Resistance

ASTM D1630 Dry Time

Passed: > 5 mm

Passed: 90% reduction min.

Passed: 80% minimum

Passed: 2% maximum

Passed: 1,000 cycles min

Dust and Tack Free: > 1-hr

Normal Traffic: > 6-hrs

Heavy Traffic: > 12-hrs

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 of CM 2007R. See Table

Coverage Rates (Square feet / gallon)	CM2007R
Concrete (Dry Cast) Porous	100-150 sq.ft.
Concrete (Wet Cast) Porous	125-175 sq.ft.
Concrete (Wet Cast) Polished	200-250 sq.ft.
Precast Concrete (Light & Dense)	150-200 sq.ft.
CMU	100-150 sq.ft.
Exterior Plaster	100-150 sq.ft.
GFRC (Glass Fiber & Polymer)	150-200 sq.ft.
High-Density Fiber Cement	150-200 sq.ft.
Masonry (Joints and Seals)	100-150 sq.ft.

SURFACE PREPARATION:

The surface to be applied must be free from any curing compounds, dirt or any other foreign materials that will impair bonding and penetration on to the substrate. For freshly poured concrete, CM 2007R can be applied when concrete is able to be released from the mold or liners and can treated as early as 7-days upon hydration cure. It is recommended to apply the CM 2007R when the surface moisture content is below 15%, excessive moisture can affect penetrating performance thus reducing treatment efficiency.

For horizontal floor applications that may require burnishing or polishing, do not apply CM2007R due to potential flooding on dense surfaces, use an approved densifier such as CoatMasters 4007 or contact our Technical Service Support for assistance.

Use of material requires knowledge of standard safety practices and good protection for areas being applied, keep children and pets away from the work area. Maintain good air ventilation if used indoors. The material is ideally applied in fairly ambient temperatures below 100 °F and not exceeding. 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), as this will cause the liquid to freeze.

PRODUCT APPLICATION:

For spray applications, the product can be both applied either by using a short foam nap-roller for smaller jobs or via spray atomization or airless techniques for larger size applications. Please follow recommended spray pressure application and optimize when desired coating is achieved, preferably using fan widths from 6 – 10 inches either with 9 (0.009”), 13 (0.013”), or 15 (0.015”) thousandths of an inch size tips, including fine-finish low pressure type tips of similar sizes.

Guideline for selecting spray tip for Airless and High-Volume Low Pressure (HVLV).

Proper tip size selection is important and is designated according to tip size. For example, a typical 515 tip size, the first digit refers to the fan width and is half the size of the working fan width. The second and third digits refers to the orifice size in thousandths of an inch.

Example, a typical airless GRACO or Titan sprayers with select Tip number 515 is identified as follows:

First digit 5 = 10” fan pattern at about a foot away from the object sprayed
 Second and third digits 15 references the orifice size in thousandths of an inch

Always maintain good saturation of the substrate, depending on the porosity successive coatings may be needed to ensure good penetration. Do not over coat when material overruns the substrate, this is a sign of saturation. Wait between coats, the surface must be reasonably dry, and no wet-look appearance is observed.

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 at least 1-year in 77°F storage condition, and longer depending on conditions. Avoid the material from freezing, and before using mix the product thoroughly until homogenous in appearance. Empty containers must be disposed according to your 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 vented 5-gallon pails, 55-gallon drums, and 275-gallon totes (1-gal net = approximately 8.32 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. 8 AM – 5 PM PST

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 their own appropriate testing to ensure compatibility, and suitability for all its intended use.