



CHEM-SIL 85C

Water-based Hardener, Densifier & Dustproofer for Concrete

PRODUCT DESCRIPTION

CHEM-SIL 85C is a water-based hardener, densifier, sealer, and dustproofer for concrete.

Although CHEM-SIL 85C is totally different than conventional surface hardeners and densifiers because it contains a special catalyst that has been engineered to trigger a chemical reaction by which the chemicals bond chemically to the substrate within the pores and voids, where they form bi-calcium and tri-calcium silicate insoluble compounds. It also contains other active ingredients that dramatically reduce the viscosity and surface tension of the product, thus enhancing its penetration depth through the surface capillaries.

CHEM-SIL 85C densifies and hardens the treated structure and provides it with an excellent abrasion and water resistance as well as efficient dust-proofing properties.

FIELDS OF APPLICATION

CHEM-SIL 85C is an ideal hardening, densifying, and dustproofing agent for concrete, lime stone and Masonry in:

- Chemical processing plants.
- Sewage treatment plants.
- Water treatment plants.
- Refineries.
- Food processing plants.
- Civic centers & sport arenas.
- Parking decks.
- Hospitals, airports, and museums.
- Trade show centers.

PRODUCT FEATURES

- Water-based.
- No VOC.
- Non-Toxic.
- Ready to use and easy application by spraying.

PACKAGING

Product	Packaging
CHEM-SIL 85C	5 GAL (18.92 LITER) PAIL
	55 GAL (208.18 LITER) DRUM

TECHNICAL DATA

Property	Value @ 25°C (77°F)
Specific Gravity	1.08
Freeze Temperature, °F (°C)	20 (-7)
Boiling Point, °F (°C)	214 (102)
Drying Time, hours	2 – 4
Solvent Clean up	Water
Color	Clear
Odor	None
Toxicity	None
VOC, grams/Liter	0.0
Flammability	None
Fumes During Treatment	None
Environmental Hazards	None

Applicable Standards: CHEM-SIL 85C meets:

- ASTM C42: 40% increase in compressive strength @ 14 days.
- ASTM G23: Ultraviolet light and water spray exposure had no adverse effect on CHEM-SIL 85C.
- ASTM C779: Standard Test Method for Abrasion Resistance of Horizontal Concrete Surfaces
- ASTM E303: Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester
- ASTM C666: Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing
- AASHTO T 259: Resistance of Concrete to Chloride Ion Penetration
- ASTM C642: Standard Test Method for Density, Absorption, and Voids in Hardened Concrete
- Penetration Test (Ink Test): 5 – 10 mm depth.

APPLICATION DATA

Old Concrete:

1. Clean the surface and remove any contaminants and dust to open the surface voids.
2. Spray CHEM-SIL 85C evenly at a coverage ratio of 200 ft²/Gallon (4.9 m²/L).
3. Maintain the surface wet with the product for 30 minutes by reapplying to porous areas that quickly absorb the product; meanwhile, agitate the product over areas that show slow absorption rates using a bristle broom or a brush.
4. Sweep away any excess or unabsorbed material with a broom or squeegee.
5. Allow the surface to dry for about 2 hours and then flush with water to remove any material that remains on the surface.

New Concrete:

Soon after the concrete substrate has reached the set stage and the finishing is complete, make sure the surface is free from ponded water then apply CHEM-SIL 85C to new concrete following the same steps as in the case of old concrete.

CLEANING

Clean all tools and sprayers with water.

STORAGE

Store all containers between 40°F (5°C) and 95°F (35°C). Shelf life is 24 months in original unopened container. **Do not allow product to Freeze.**

SAFETY PRECAUTIONS

Do not allow material to come into contact with glass, aluminum or glazed tile systems. **Keep Out of Reach of Children.**

TECHNICAL ASSISTANCE

Please contact International Chem-Crete Corporation for Technical Personnel.

WARRANTY

LIMITED WARRANTY: International Chem-Crete Inc. warrants that, at the time and place we make shipment, our materials will be of good quality and will conform to our published specifications in force on the date of acceptance of the order.

DISCLAIMER: The information contained herein is included for illustrative purposes only and, to the best of our knowledge, is accurate and reliable. International Chem-Crete Inc. is not under any circumstances liable to connection with the use of information. As International Chem-Crete Inc. has no control over the use to which others may put its products, it is recommended that the products be tested to determine the suitability for specific applications and/or our information is valid in particular circumstances. Responsibility remains with the architect or engineer, contractor and owner of the design, application and proper installation of each product. Specifier and user shall determine the suitability of the product for specific application and assume all responsibility in connection therewith. AM26319.

Manufactured By:



International Chem-Crete Inc., 800 Security Row, Richardson, TX 75081, U.S.A

Tel: (972) 671-6477, Fax: (972) 238-0307

contactus@chem-crete.com

www.chem-crete.com