



C² Salt Hard+™

Corrosion inhibitor, water repellent and “chloride screen” additive

DESCRIPTION

C² Salt Hard+™ is a premeasured additive, water-based, VOC compliant silane/siloxane water repellent and “chloride screen” concentrate specially formulated to mix with C² Super Hard™ or C² Hard™. C² Salt Hard+™ mixing ratio is 1:4; 1 part additive to 4 parts of C² Super Hard™ or C² Hard™.

When combined with C² Super Hard™ or C² Hard™, C² Salt Hard+™ hardens, dustproofs, and protects from abrasion, moisture intrusion, and chloride salts, all in one easy application. Prepared C² Salt Hard+™ penetrates more deeply than conventional water or solvent based water repellents. Low odor and alkaline stable, C² Salt Hard+™ is ideal for field or in-plant application to concrete masonry. C² Salt Hard+™ protects horizontal and vertical surfaces from moisture intrusion and chemical attack of chloride salts.

In coastal areas, C² Salt Hard+™ protects against salt air by screening chlorides from penetrating through concrete to the reinforcing steel. C² Salt Hard+™ reduces rebar corrosion and surface spalling caused by water-carried salts. Use C² Salt Hard+™ on horizontal surfaces such as driveways, sidewalks, and other concrete masonry. Provides excellent protection for retaining walls, bridge pilings and other vertical areas exposed to de-icing salts.

C² Salt Hard+™ is an effective alternative to conventional solvent-based silanes and siloxanes.

C² Salt Hard+™ penetrates and chemically bonds deep within the concrete or masonry substrate to provide long-lasting protection against moisture intrusion and water-related staining or deterioration. Properly applied, C² Salt Hard+™ does not produce a surface film. Treated surfaces keep their natural breathing characteristics and natural appearance.

BENEFITS

Concentrated Additive

Concentrated formula allows for mixing with C² Super Hard™ or C² Hard™.

Versatile Inhibitor

Ready-to-use C² Salt Hard+™ allows for hardening, dustproofing, and protection from abrasion, moisture intrusion, and chloride salts in one easy step.

Water-Based

Water-based formula minimizes explosion and fire hazards associated with alcohol or solvent-based water repellents.

Planet Safe

Low odor reduces risk of application to occupied buildings and complies with all known national, state and district AIM VOC regulations.

Alkaline Stable

Suitable for new “green concrete”, 14-28 days old.

Breathable

Treated surfaces “breathe” – does not trap moisture.

Provides Protection

Provides effective protection against de-icing salts, salt air, and freeze/thaw cycles.

Limitations

All information provided is accurate to the best of our knowledge and is to be used strictly as a guide. Handling conditions, installation and use are not in our control therefore we cannot guarantee the results.

- Not for use on natural stone.
- Not suitable for application of coated surfaces or surfaces previously treated with water repellents or liquid hardeners.
- Not suitable for protecting surfaces subject to constant water spray (car washes).
- Will not prevent water penetration through structural cracks, defects or open joints.
- Ready-to-use C² Salt Hard+™ is not suitable for application to synthetic resin paints, gypsum, or non-masonry surfaces. The product may not be suitable for surfaces to receive paints or coatings. Always test compatibility.
- Not recommended for below grade applications.
- Not intended to be polished mechanically after application

For additional testing information contact Crete Colors International at: support@cretecolors.com



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Technical Data

FORM	White, opaque liquid, low odor
SPECIFIC GRAVITY	0.96 (concentrate)
ACTIVE CONTENT	50% (concentrate)
TOTAL SOLIDS	42% (concentrate)
pH	7-8 (concentrate)
WT/GAL	7.99lbs (concentrate)
FLASH POINT	>100°C (212°F)
FREEZE POINT	0°C (32°F)
VOC CONTENT	<25g/L (diluted)
SHELF LIFE	1 years in unopened, factory sealed container

COMPLIANCE

Complies with all known national, state and district AIM VOC regulations:
Safe for use in food and drug processing industries.

X	California Air Resources Board SCM Districts
X	South Coast Air Quality Management District
X	Maricopa County, Arizona
X	Northeast Ozone Transport Commission
X	US Environmental Protection Agency

PERFORMANCE TESTS

Laboratory testing has shown this product to be a singularly effective general-purpose water repellent/chloride screen. All tests were compared to untreated control.

(USA) National Cooperative Highway Research Program:

NCHRP 244 Series II

- Reduction in Chloride Ion Absorption: -90%

NCHRP 244 Series IV

- Accelerated Weather Tests, Southern Exposure: -88%

ASTM E 514 Wind-Driven Rain

- Reduction in Water Absorption: -91%

ASTM C 672 Scaling Resistance Exposure To De-Icing Chemicals & Freeze/Thaw Cycles (50 cycles)

- Cumulative Mass Loss: No mass loss
- Scaling Resistance: No scaling

Resistance To:

- Sunlight -Excellent
- Alkalinity -Excellent

Surface Appearance

- (after application): No change.

SURFACE

PREPARATION

Please read: SAFETY INFORMATION on the label and SURFACE PREPARATION before use and application.

Surface

Application of prepared C² Salt Hard+™ may begin as soon as prepared surfaces are dry and free of ponded water. Do not apply to surfaces, which are frozen, dirty or have standing water. Acid-stained concrete must be thoroughly neutralized and rinsed prior to application of prepared C² Salt Hard+™.

Protect people, vehicles, property, windows, plants and all nearby surfaces not to be treated from contact with the product including contact resulting from wind drift or overspray. Use polyethylene or other proven protective material to mask off all surrounding areas.

Surfaces must be clean, dry and absorbent. Confirm surface absorbency with a light water spray. Surfaces designated for treatment should wet uniformly. If the surface does not wet uniformly, use the appropriate surface preparation cleaner or mechanical process to remove remaining surface contaminants.

Always prepare a test sample to ensure that the desired results are achieved on the specific substrate.

Equipment

Use a low-pressure sprayer or roller and soft-bristled push broom, squeegee or microfiber pad.

Air and Surface Temperature

Air and surface temperature should be 4°C to 35°C (40° F to 95° F). Higher temperatures can cause evaporation of the water carrier which can reduce penetration. Excessive surface heating can be prevented by shading with awnings.

If freezing conditions exist before application, let concrete thaw thoroughly. Subfreezing temperatures will freeze/crystallize, inhibiting penetration and significantly impairing results. Do not apply when there is a chance of rain.



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SOLUTIONS

Remove all curing compounds and other surface contaminants using the appropriate C² surface preparation cleaner, as listed below:

C² Wash™ – Concrete laitance and construction soiling from freshly placed and cured concrete

C² Maintenance™ – General soiling and fine dust from ground/polished concrete

C² Remove™ – Curing compounds, mastics, tire marks, wax remover

C² Stain Clean™ – Oil and grease stain remover

C² Clean™ – For cleaning and degreasing light-to-heavy soiled concrete.

C² Safe Prep™ - Non-fuming cleaner and surface-prep for concrete

Specifier Note: The information provided below is intended to guide the Architect in developing specifications for products manufactured under contract for Crete Colors International, LLC and should not be viewed as a complete source of information about the product(s). The Architect should also refer to the MSDS document for additional recommendations and for safety information.

Specifier Note: Paragraph below is for PART 1 GENERAL, Quality Assurance.

Test Area

- Test a minimum 1.5m x 1.5m (5ft. x 5ft.) area on each type of masonry.
- Use Crete Colors International, LLC application instructions.
- Let the test panel dry 3 to 7 days before inspection.
- Keep test panels available for comparison throughout the project.

Specifier Note: Paragraphs below are for PART 2 PRODUCTS, Manufacturers and Products.

Manufactured under contract for:

Crete Colors International, LLC,
112 South Kyrene Rd. Suite #2
Chandler, AZ 85226, USA.
Tel: +1-480-426-0424
Fax: +1-480-499-5550
E-mail: support@cretecolors.com

Specifier Note: Paragraphs below are for PART 3 EXECUTION, Installation.

STORAGE AND HANDLING

Maintain temperature of 7-38°C (45-100°F), protect from extreme temperatures and keep from freezing.

Do not double-stack pallets. Published shelf life assumes upright storage of factory-sealed container in a cool dry place.

Do not alter or mix with other chemicals during storage.

Shake well before using and always seal container after dispensing. Dispose of unused product and container in accordance with local regulations. Do not reuse container or remove labels. Keep this and other chemicals out of the reach of children.

PACKAGING

3.5L and 20L containers

APPLICATION INSTRUCTIONS

ALWAYS TEST

each surface for suitability and desired results before application. For best results follow “Application Instructions”. Let surface dry thoroughly before inspection and final approval.

Dilution

Mix 1 part C² Salt Hard+™ to 4 parts C² Super Hard™ or C² Hard™ before application.

20L container mixing instructions:

Shake well to mix thoroughly the 3.5L container of C² Salt Hard+™. Transfer shaken 3.5L C² Salt Hard+™ to an empty 20L container and fill the remainder of this container (16.5L) with C² Super Hard™ or C² Hard™.



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This will make 20L of a ready-to-use product. Always mix well before and during each application.

200L container mixing instructions:

Shake well to mix thoroughly 2 - 20L containers of C² Salt Hard+™. Transfer 2 shaken 20L containers to an empty 200L drum. Then fill the remainder of this container (160L) with C² Super Hard™ or C² Hard™. This will make 200L of ready-to-use product. Always mix well before and during each application.

Mixed product must be applied within 24 hours.

When environmental conditions cause rapid drying, mix C² Salt Hard+™ with C² Hard™. For maximum densification, mix C² Salt Hard+™ with C² Super Hard™.

COVERAGE RATES

Coverage rates are based on 1-4 mixing ratio of C² Salt Hard+™ with C² Super Hard™ or C² Hard™.

- 2 – 13 m² / Liter
- 20 – 140 sqf² / Liter

PLEASE NOTE: Coverage rates are offered for estimating purposes only. Variations in concrete quality, porosity, texture, job site conditions, temperature and relative humidity will affect coverage rates and drying times.

Vertical Surfaces

Use sprayer.

For best results, apply in a thin single saturating coat to a thoroughly dry surface. When spraying, saturate from the bottom up. Use enough to create a 4” to 6” rundown below the spray contact point.

Vertical Surfaces

Use brush or roller

Minimize overlap. Saturate the surface. Brush out heavy runs and drips that do not penetrate.

Horizontal Surfaces

Apply a single, saturating coat so that the surface stays wet for a few minutes. Thoroughly broom out any pools or puddles, removing product that did not completely penetrate the surface. Do not let puddles stay on surface.

Porous Surfaces

Let the first application penetrate the surface. Re-saturate within 5 to 10 minutes. Less material will be required on the second application.

Dense Surfaces

Apply a single coat. Use enough to completely wet the surface without creating drips, puddles or rundown. Do not over apply. Test for application rate. Buff off excess material as soon as possible after application.

Dry Time

Treated surfaces will dry to touch within 1 hour. Protect surfaces from rainfall for a minimum of 6 hours following treatment. Treated surfaces will be ready for pedestrian and vehicle traffic in 24 hours. Water repellency of treated

surfaces will increase for up to 14 days after application.

Paint Adhesion

Surfaces treated with C² Salt Hard+™ may be coated with silicone emulsion paints and many oil-based paints. Always test to assure adhesion. Adhesion may be improved if surface is pressure-rinsed and allowed to dry before application. Adhesion of some cementitious coatings, plaster, stucco, etc. may be adversely affected. Such surface treatments should be installed and allowed to thoroughly cure before installation of C² Salt Hard+™. Always test to verify compatibility between C² Salt Hard+™ and other surface treatments.

Clean Up

Before product dries, clean tools and equipment with fresh water. Immediately wash off over spray from glass, aluminum, polished or other surfaces with fresh water.

RECOMMENDATIONS

The C² recommendations for surface preparation and product application must be followed. Consult Crete Colors Int'l or its local representatives regarding applications in extreme weather conditions

All loose construction debris and foreign materials must be removed from the area to be treated using a dry broom. All curing compounds, coatings, and paint, wax, embedded soiling, rust, grease and oil must be removed to allow penetration



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breathing difficulties persist, seek medical attention.

SAFETY INFORMATION

Your safety is our priority. Crete Colors International, LLC is a member of INFOTRAC'S MSDS Partnership Program. In case of any chemical emergency related to our C² products; spill, leak, fire or accident, please contact INFOTRAC free of charge for immediate first aid information.

Online access 24/7 at:
www.infotrac.net

Phone access 24/7 at:
+1- 352-323-3500

FIRST AID

Ingestion:

Drink large quantities of water or milk. DO NOT induce vomiting. Seek medical attention immediately.

Eye Contact:

Remove contact lenses. Immediately flush eyes for 15 minutes in clear running water while holding eyelids open. Seek medical attention immediately.

Skin Contact:

Wash contacted area with soap and water. DO NOT attempt to neutralize with chemical agents. If irritation persists, seek medical attention.

Inhalation:

Remove affected person to fresh air. Wash mouth and nasal passages with water repeatedly. If

WARRANTY

The information and recommendations made are based on our own research and the research of others, and are believed to be accurate. However, no guarantee of their accuracy is made because we cannot cover every possible application of our products, and anticipate every variation encountered in masonry surfaces, job conditions and methods used. The purchasers shall make their own tests to determine the suitability of such products for a particular purpose. Crete Colors International warrants this product to be free from defects. Where permitted by law, Crete

Colors International makes no other warranties with respect to this product, express or implied, including without limitation the implied warranties of merchantability or fitness for particular purpose. Crete Colors liability shall be limited in all events to supplying sufficient product to re-treat the specific areas to which defective product have been applied. Acceptance and use of this product absolves Crete Colors from any other liability, from whatever source, including liability for incidental, consequential or resultant damages whether due to breach of warranty, negligence or strict liability. This warranty may not be modified or extended by representatives of Crete Colors International, its distributors or dealers.

CUSTOMER SERVICE:

For technical assistance and product information visit our web site at www.cretecolors.com or email at support@cretecolors.com

