C² Color Hard™
One-Step Color for Concrete

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DESCRIPTION

C² Color Hard™, when mixed with C² Super Hard™, is a one-step color hardener that transforms dull concrete into an attractive, low-maintenance and decorative concrete.

This one-step, unique hardener is available in two versions - C² Color Hard™ - for interior applications only and C² Color Hard I/O™ for interior and exterior applications. C² Color Hard™ is a specially formulated color concentrate, premeasured for addition to and C² Super Hard™. Add one bottle of C² Color Hard™ to 5 liters of C² Super Hard™ to produce a high-performance, lithium-silicate color hardener.

This wide range of colors may be used alone or combined to produce an unlimited range of color hues and artistic effects. C² Color Hard™ dustproofs and improves the abrasion resistance of concrete floors or exterior pavements.

High-speed burnish floors for attractive luster or treat color hardened surfaces with any Crete Colors protective treatment for surface sheen, color enhancement, and protection from staining or damage caused by de-icing salts. C² Color Hard™, supplied as a concentrate, minimizes freight, handling, storage and container disposal costs.

BENEFITS

Flexible. May be used over integrally colored concrete, shake-on color hardeners, acid-stained concrete or concrete colored with solvent-based dyes.

Effective. Saves time, reduces waste and eliminates hazards commonly associated with corrosive acid stains or highly flammable solvent reduced dyes.

No Harmful acids. Will not etch concrete surfaces or corrode surrounding metals. No need to neutralize.

Unique. Adds color, depth and abrasion resistance to trowel finished, ground or textured concrete.

Dust Proof. Making concrete glossy and economically easy to maintain. No waxing required.

Durable. Will not peel or flake.

Easy to Use. Easy application and controlled drying allows color to be added and blended

Planet Safe, water-based, contains no solvents, non-toxic, no smell, complies with all known national, state and district AIM VOC regulations, non-mutagenic & carcinogenic (safe in food reparation areas), non flammable, fast drying, easy to apply.

Technical Data

FORM	Colored liquid concentrate
SPECIFIC GRAVITY	1.2 – 2.0
ACTIVE CONTENT	50% - 70%
TOTAL SOLIDS	50% - 70%
pH	6.5 – 9.5
WT/GAL	10 – 16 LBS/GAL
FLASH POINT	ND
FREEZE POINT	0ºC (32ºF)
VOC CONTENT	<100 g/L used
SHELF LIFE	1 year in tightly sealed, unopened container

ADVANTAGES

- This one step, penetrating color hardener is environmentally responsible. It saves time, reduces waste and eliminates hazards commonly associated with corrosive acid stains or highly flammable solvent reduced dyes.
- Vibrant colors turn gray or white concrete into abrasion resistant, dust-proof, colorful, and decorative concrete.
- Adds color, depth and abrasion resistance to trowel finished, ground or textured concrete.
- May be used over integrally colored concrete, shake-on color hardeners, acid-stained concrete or concrete colored with solvent-based dyes.
- VOC Compliant. Non-flammable. Non-toxic. Non-corrosive. Low odor. Suitable for use in occupied spaces.
- Will not peel or flake.
- Contains no harmful acids. Will not etch concrete surfaces or corrode surrounding metals. No need to neutralize.
- Easy application and controlled drying allows color to be added and blended.
- Produces vibrant colors on properly prepared concrete surface of any age.
- Standard colors may be intermixed or applied one over the other to create an unlimited number of color variations.
- Two coats improve color intensity and may help mask surface imperfections.
- Ideal for use alone or under any Crete Colors protective treatment.

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Limitations

- All the information provided is to the best of our knowledge, accurate 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.
- C² Color Hard™ is translucent. Variations in the concrete before application may still be noticeable after application.
- Colors may fade slightly when exposed to intense ultraviolet light.
- Not for use on surfaces exposed to standing water.
- Not for use on concrete floors polished higher than the equivalent of #200 grit resin diamonds.

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

COMPLIANCE
C² Color Hard™ complies with all known national, state and district AIM VOC regulations:

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**

SURFACE PREPARATION

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

Surface
Protect people, vehicles, property, and nearby surfaces not to be treated from contact with the product or overspray. Use polyethylene or other proven protective material. Use blue painters tape as needed. Avoid duct tape or other masking materials that leave adhesive residues, which inhibit penetration of color stains. Remove all tape and plastic sheeting as soon as practical after staining is complete.

To ensure penetration of C² Color Hard™, the concrete surface must be clean and dry. Contaminants left on the surface may prevent penetration of the stain. Stain residues left on the surface may track or wash away with maintenance cleaning.

Freshly placed concrete must be at least 21 days old before coloring. Once concrete is placed, protect the surface from all construction activities before staining. Do not store building materials on newly placed concrete surfaces. Avoid standing water. Always prepare a test sample to ensure that the desired results are achieved on the specific substrate.

Equipment
Use a clean, low-pressure sprayer, microfiber pads, brush, roller or rags to apply C² Color Hard™. Do no atomize. Wear "spiked" shoes when walking in wet C² Color Hard™.

Air and Surface Temperature
For best results maintain consistent airflow and surface temperature during application.

Air and surface temperature should be 10ºC to 32ºC (50°F and 90°F).

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.

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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
- Refer to "Application Instructions" and always test each type of surface and each type of stain for suitability, dwell time and results.
- Follow Crete Colors International, LLC application instructions.

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

Manufactured under contract for:
Crete Colors International, LLC, P.O. Box 93542, Phoenix, AZ 85070, USA.
Tel: +1-602-903-2133
Fax: +1-480-706-8144.
E-mail: support@cretecolors.com

Specifier Note: Paragraphs below are for PART 3 EXECUTION, Installation.
Please read SAFETY INFORMATION on the label and SURFACE PREPARATION before use and application.

STORAGE AND HANDLING

Store in a cool, dry place. Once opened, dispense entire contents of C² Color Hard™ bottle per one gallon of C² Super Hard™.

Overspray and spills may be difficult or impossible to remove. Protect surfaces not intended to be colored with plastic during mixing and application.
Published shelf life assumes storage of unopened C² Color Hard™ in a dry place. Maintain temperature of 7–38°C (45-100°CF). Keep from freezing. Do not crush or tear. Dispose of unused product and container in accordance with local, state and federal regulations. Do not reuse container or remove labels. Keep this and other chemicals out of the reach of children.

PACKAGING

Pre-measured containers for 5 liters of C² Super Hard™.

COVERAGE RATES

C² Color Hard™ typically covers 10-20m² per liter.

PLEASE NOTE Variations in concrete quality, porosity, job site conditions, temperature and relative humidity will affect coverage rates and drying times. Prepare one gallon of color hardener and apply it to a representative section of the prepared surface. Calculate the Target Coverage Rate using the following application instructions.

APPLICATION
Please read "Safety Information" on the label and "Surface Preparation" before use and application.

> **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.

MIXING
C² Color Hard™ must be mixed with C2 Super Hard™ right before application.

Mix one premeasured container of concentrate with 5 liters of C2 Super Hard™ to produce ready-to-use C² Color Hard™. Thoroughly mix product before and during each use For reduced color intensity, add additional C² Super Hard™

For increased color intensity, apply two coats of C² Color Hard™

PLEASE NOTE: Diluted C² Color Hard™ must be use within 24 hours from the time of mixing.

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GROUND CONCRETE: When grinding, smooth and level the floor up to the equivalent of #200 grit resin diamonds before application. Do not grind after applying C² Color Hard™.

TROWEL FINISHED OR BROOM FINISHED CONCRETE: To open the surface pores and achieve more uniform coloring on freshly placed and cured concrete, clean the concrete surface thoroughly using C² Wash™ before applying C² Color Hard™.

OLDER CONCRETE: To open the surface pores and achieve more uniform coloring, clean the concrete surface thoroughly using C² Wash™ before applying C² Color Hard™.

Once surface preparation is complete, apply a light water spray to random portions of the floor or pavement to confirm the surface wets uniformly. If surface does not wet uniformly, additional preparation is needed.

Remove all dust and debris using a floor scrubbing machine and fresh water. Allow wet surfaces to dry. Always prepare a test sample to ensure that desired color and results are achieved.

Once concrete is placed, protect the surface from all construction activities before color hardening. Do not store building materials on newly placed concrete surfaces. Avoid standing water. C² Color Hard™ may be applied to ground, towel-finished or broom finished concrete surfaces.

Remove all dust and debris using a floor scrubbing machine and fresh water. Allow wet surfaces to dry. Thoroughly mix produce before and during each use. Test all surfaces that may be in contact with product or rinse water for suitability.

1. Apply the prepared C² Color Hard™ to the clean and dry concrete floor using a low-pressure sprayer delivering a fine, conical spray pattern. Apply sufficient material to wet the surface without producing puddles. Multiple light applications achieve better results and color uniformity than one heavy application. Keep a small bucket or rag handy to collect drips when not spraying stay on the surface for 1-10 minutes, based on testing.

2. **ON SMOOTH SURFACES**: spread the C² Color Hard™ with a clean microfiber pad. Apply in a smooth, irregular pattern to minimize streaking. Best results are achieved when two people are used for application – one to spray the product while the other uniformly distributes the product.

3. **ON TEXTURED SURFACES**: use a clean push broom to spread the color.

4. Continue spray-applying sufficient C² Color Hard™ to maintain a wet edge with the microfiber pad or broom. Redistribute and work the color into the surface to minimize unintended streaking or patterns. Do not overwork the product or attempt to spread the product once it begins to dry.

Repeat steps 2-4 as needed to achieve desired color intensity.

5. Avoid walking on freshly treated surfaces. Allow surface to dry a minimum of one hour. Dry time will vary with concrete quality and ambient conditions

6. Once dry, burnish smooth surfaces using a high-speed burnisher fitted with a #800 grit (or higher) diamond-impregnated pad. Burnish textured surfaces using a high-speed burnisher fitted with hogs, hairbrushes or equivalent. Burnishing removes excess pigments and enhances surface luster. Failure to remove excess pigments may result in color tracking.

7. Use a floor scrubbing machine and fresh water to remove all dust and debris. Collect any excess water. Allow wet surfaces to dry.

SEALING

Color hardened surfaces should be protected with one of the C² protective treatments listed below.

C² Salt Safe™ – penetrating, colorless protection from water and salt related damage. Interior or exterior use.

C² Stain Safe™ – deep penetrating, colorless protection from water and salt related damage, petroleum and food related staining. Interior or exterior use.

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C² Seal™ – improves color intensity, surface sheen, hardness and stain resistance. Interior use only.

CLEANUP

Clean tools and equipment immediately with fresh water. Remove all tape and plastic sheeting as soon as practical after work is complete.

FINAL RESULTS

The floor is ready to use when dry. Hardened and protected concrete surfaces should exhibit reduced water absorption and the desired sheen upon drying. Maximum water resistance will develop over 7 days. Prior to building occupancy, protect the floor with a breathable covering, to avoid damage or staining by other trades.

MAINTENANCE

Remove surface dust and debris daily by sweeping the floor with a microfiber pad or dry dust mop. Many common maintenance procedures have the potential to chemically etch or mechanically abrade finished concrete floors. To avoid such damage, make certain maintenance cleaners and cleaning pads or brushes are developed expressly for use on finished concrete flooring.
Use C² Maintenance™ for regular maintenance cleaning. ² Maintenance™ contains lithium-silicate which improves surface density and preserves surface sheen while removing common surface soiling.

For additional information please contact us at support@cretecolors.com .

RECOMMENDATIONS

The C² recommendations for product application must be followed.

Remove loose debris and foreign materials from the area to be treated before application.

Pre-wet the surface with clean water working from the bottom to the top.

Thoroughly neutralize and rinse acid-stained concrete before application.

To achieve a higher surface gloss, protect interior color hardened surfaces with C² Seal™.

Thoroughly mix product before and during each use.

Notify all trades that the concrete surface will be the finished floor. Take extra care to avoid damage or staining of the floor during the construction process.

Sequence your application to minimize walking and tracking through the wet color hardener.

Before treatment, apply a light water spray to random portions of the floor to confirm the surface wets uniformly. If surface does not wet uniformly, additional surface preparation is needed.

Mask neighboring surfaces as needed to control color bleeding. Use shallow saw cuts to separate different colors.

To ensure a wet edge throughout the application, subdivide the surface to be stained into small working areas using control joints, walls and other fixed objects as natural termination points. When practical, stop the day's application at a control joint or a defined feature in the floor.

When grinding concrete floors, smooth and level the floor to the desired surface texture before application.

When spraying, maintain consistent flow rate and a conical spray pattern. Keep a small bucket or rag on hand to collect drips when not spraying.

After drying, burnish color hardened surfaces to remove excess color and enhance surface sheen.

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For best results on smooth surfaces, spread C² Color Hard™ evenly using a microfiber pad and firm downward pressure. On textured surfaces use a clean, densely packed, soft fibered push broom.

Thoroughly rinse application equipment with fresh water between colors and after final application. To achieve a higher surface gloss, protect interior color hardened surfaces with C² Seal™.

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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 accidents 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

C² Color Hard™ is an aqueous coating solution. Use appropriate safety equipment and job site controls during application and handling.
Read the full label and MSDS for precautionary instructions before use. Always read the product label thoroughly before use.

FIRST AID

Eye Contact: Flush with water for a least 20 minutes. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Seek medical advice after flushing.

Skin Contact in Contact: Wash area with soap and water. Get medical attention if irritation develops or persists.

Ingestion: DO NOT INDUCE VOMITING. Immediately give 2 glasses of water. Contact a physician.

Inhalation: If breathing is difficult, remove to fresh air and give artificial respiration. Call a physician or transport to a medical facility if cough or other symptoms develop.

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