

Clear Guard® H₂O Water-Based Cure and Seal

Technical Data Sheet CGH-01

FOR PROFESSIONAL USE ONLY. Read all applicable and current product information for your project: Technical Data Sheet (TDS), Color Chart, Installation Guide, Safety Data Sheet (SDS). All information is available for download online at www.butterfieldcolor.com and at point of purchase.

MasterFormat™ Guide Specifications, and Butterfield Color® Architectural Details and Specifications are available for the specifier/designer. All information is available for download online at www.butterfieldcolor.com and at point of purchase.

1. Description: Clear Guard® H₂O Water-Based Cure and Seal is a water-based, VOC compliant, non-yellowing, curing, and sealing compound for newly poured and existing concrete surfaces. The product is formulated for curing and sealing uncolored concrete, integrally colored concrete, and color hardened (shake-on) concrete, stamped or stenciled concrete, and cementitious overlays. It is recommended for use with Uni-Mix® Integral Concrete Colorant and Uni-Mix® Liquid Integral Concrete Colorant coloring systems, Perma-Cast® Shake-on Color Hardener, Perma-Cast® Sierra Stain™, Elements™ Transparent Concrete Stain, T1000™ Fine Overlay, and T1000™ Stampable Overlay. It is suitable for residential or commercial projects, interior floors, exterior hardscapes, and vertical surfaces.

Clear Guard® H₂O Water-Based Cure and Seal visually enhances the concrete color, protects the surface from dirt and staining, and minimizes the affects of de-icing salts and exposure to gas or oil. It is well suited for application to cured concrete to prevent absorption or penetration of many fats, oils, greases, aliphatic solvents, salts, acids, and other chemicals. By preventing penetration of these compounds, Clear Guard® H₂O Water-Based Cure and Seal provides good economical protection for floors and hardscapes, thereby reducing maintenance costs.

As a curing compound, it improves the surface strength, abrasion resistance, and durability of the concrete, and reduces the potential for plastic cracking. It forms a moisture barrier that prevents free lime in the concrete from migrating and reacting at the surface, forming a dust residue. Curing with Clear Guard® H₂O Water-Based Cure and Seal also

provides interim construction protection from most oils, greases, chemical spills, and from the adhesion of mortar splashes. Final cleanup costs are reduced and the resulting concrete surface appearance is greatly enhanced. Clear Guard® H₂O Water-Based Cure and Seal can also be applied to old concrete, terrazzo, brick, and masonry tiles to dust proof and impart stain and chemical resistance.

Clear Guard® H₂O Water-Based Cure and Seal is an emulsified acrylic specifically designed to meet the moisture retention properties of ASTM C-309, AASHTO M-148, Navdock 13 YF, and ORD C-300, when applied at the recommended coverage rate. It is a milky white liquid which dries to a clear, high gloss, UV resistant film. Clear Guard® H₂O Water-Based Cure and Seal complies with all VOC (<100 g/L) requirements and other Federal and State Air Quality Regulations. The longevity of Clear Guard® H₂O Water-Based Cure and Seal depends upon the dried film thickness, exposure, and use conditions. Clear sealers will scratch and scuff, and will require maintenance. Treated surfaces are readily re-coated after thorough cleaning.

Clear Guard® H₂O Water-Based Cure and Seal is a low VOC, environmentally sound curing and sealing material. It may contribute to earning LEED® credits for indoor environmental quality.

2. Limitations: Do not use Clear Guard® H₂O Water-Based Cure and Seal on concrete slabs with inadequately drained sub-grade and/or surfaces subject to hydrostatic water pressures. Do not use in swimming pools, fountains or ponds. Do not use on surfaces that will have direct food contact. Do not use for re-coating or in conjunction with other floor seal-

ers, treatments, bond breakers, or adhesives without prior test to determine compatibility and adhesion. Do not apply solvent-based sealers over Clear Guard® H₂O Water-Based Cure and Seal. Do not use to fill or repair cracks in the substrate.

Do not use Clear Guard® H₂O Water-Based Cure and Seal if it has been frozen. Clear Guard® H₂O Water-Based Cure and Seal must dry completely dry before it is subjected to temperatures below 45°F (7°C) or moisture. Do not over-apply material or allow to collect in joints, texture imprints or other surface impressions. Excess material may whiten permanently and lose adhesion.

Warning: Treated surfaces may be slippery during application prior to drying, and when wet with water or liquids after drying. Concrete should be textured sufficiently to eliminate potential slipping hazards. In addition, use a non-slip additive with the Clear Guard® H₂O Water-Based Cure and Seal. Interior floors may be maintained with a slip resistant wax. Test and confirm that the treated surface is adequately slip resistant prior to opening installation to any traffic.

3. Chemical Resistance: Clear Guard® H₂O Water-Based Cure and Seal provides 24-hour spot resistance to the following chemicals with little, if any, coating effect:

<i>antifreeze</i>	<i>deicing salts</i>
<i>foods</i>	<i>fruit juices</i>
<i>vegetable oil</i>	<i>calcium chloride</i>
<i>sodium chloride</i>	

A test application should be made on the job site concrete to determine the chemical and stain resistance of Clear Guard® H₂O Water-Based Cure and Seal.



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4. Packaging:

Container	Content
Pail	1 US gallon (03.8 L)
Pail	5 US gallons (19.0 L)
Drum	55 US gallons (208 L)

4.1 SHELF LIFE: 1 year, when stored in original, unopened containers, in dry storage, between 60°-80°F. Do not use material that has been frozen.

5. Coverage: Coverage rates vary with surface texture and porosity, ambient and surface temperatures, method of application. The following coverage rates are approximate for broom finish concrete surfaces:

Curing: 200 sq. ft./gal. (4.9 m²/L)
 Sealing: 200-400 sq. ft./gal. (4.9-9.8 m²/L)

Avoid excessive build-up, particularly in the depressed textures and grout joints of stamped or stenciled concrete, hand tooled or saw cut joints. Thicker applications may lead to discoloration and diminished sealer performance. Wipe up or brush out excessive material before the film becomes tacky.

6. Application: Hand mix Clear Guard® H₂O Water-Based Cure and Seal before using. Do not dilute or mix with any other liquid or chemical. Clear Guard® H₂O Water-Based Cure and Seal may be applied using a roller, hand pump sprayer, or an airless sprayer. If using a roller, a non-shed roller with 1/4"-1/2" nap length is recommended. The nap length of the roller will depend on the surface porosity and texture of the concrete. Best results are obtained when product is applied at substrate temperatures in excess of 50°F (10°C). Do not apply at or below 45°F (7°C) or when such temperatures are expected within 12 hours following application. Control interior environment to prevent condensation from forming on the surface prior to sealing and before the sealer has become tack free. Do not apply if there are concerns with the quality of the color or finish of the concrete, until those concerns are adequately addressed.

When using a sprayer, apply material with a fan pattern nozzle. Spray equipment should be clean and in

good working condition. Hand pump sprayers must be capable of delivering moderately viscous liquids. Maintain a wet edge and avoid excessive overlaps of material. Care must be taken to protect adjacent areas from over spray.

When used as a cure coat or as an initial seal coat, if additional protection or gloss is required, an additional coating may be applied 12-24 hours after the cure coat or seal coat has dried. Longer drying times will be necessary at low temperatures or high humidity.

6.1. NEW CONCRETE: UNCOLORED, INTEGRALLY COLORED, COLOR HARDENED: Apply Clear Guard® H₂O Water-Based Cure and Seal immediately following final finishing and after the slab is firm enough to walk on without damage. Do not apply if bleed water is present. Apply to vertical surfaces immediately following form removal. Avoid runs or puddles and over application. To achieve maximum sealing and dust-proofing benefits, a second application should be made at least two weeks after the cure coat application. Surfaces to be retreated should be clean and dry. Apply in a continuous wet surface film. Application of product over excessively smooth, hard-troweled surfaces may result in adhesion loss.

6.2. NEW COLORED, STAMPED, OR STENCILED CONCRETE: After concrete has been stamped using Perma-Cast® Antiquing Release agent, thoroughly remove the residual release powder by washing and scrubbing. The concrete should be allowed to dry thoroughly before applying Clear Guard® H₂O Water-Based Cure and Seal. If Butterfield Color® Clear Liquid Release or mineral spirits is used, do not use Clear Guard® H₂O Water-Based Cure and Seal. Read the Perma-Cast® Antiquing Release and the Butterfield Color® Clear Liquid Release Technical Data Sheets before applying products. All information is available for download online at www.butterfieldcolor.com and at point of purchase.

6.3. EXISTING CONCRETE AND OVERLAYS: Adequately remove accumulations of grease, oil residue, incompatible curing, or sealing compound residue and other substances that would diminish adhesion. Wash surfaces thoroughly. Allow surface and joints to adequately dry before applying Clear Guard® H₂O Water-Based Cure and Seal. Smooth troweled interior floors will require mechanical sanding to ensure the penetration and adhesion. Surfaces that resist penetration and immediate darkening with water is an indication that surface preparation is required. Very rough, porous and deeply textured surfaces may require multiple thin applications to ensure the formation of a protective film, without pinholes or holidays.

6.4 NEW T1000™ FINE OVERLAY AND T1000™ STAMPABLE OVERLAY: Interior floors and exterior hard-scapes that have been resurfaced should be cured 12-24 hours after installation at 70°F (21°C) before applying Clear Guard® H₂O Water-Based Cure and Seal.

Before application of sealer the Moisture Vapor Emission Rate (MVER) of the concrete or cementitious topping must be measured and be less than 5 pounds per 1000 square feet per 24 hours (2.3 kg/92.9 m²/24 hours). Promptly clean application equipment with soap and water following use. Handle and dispose of cleaning residue properly.

7. Dry Time: Drying times will vary depending upon wet film thickness, surface texture and porosity, ambient and surface temperatures, humidity, and if the product is being used as a cure coat or a seal coat.

At 70°F, approximate dry times:

Tack free:	45 minutes
Light foot traffic:	6 hours
Light car traffic:	24 hours
Normal car traffic:	72 hours

8. Maintenance: Periodically inspect cured and sealed surfaces for wear or damage. All concrete curing and sealing compounds will eventually exhibit



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the affects of weathering and traffic. For maximum coating life and performance, wipe up all chemical solvent or petroleum spills as soon as possible. Remove abrasive debris by sweeping or vacuuming. Do not drag, drop or place sharp edges on sealed surfaces. Periodic washings with mild detergents will help maintain surface luster. Do not use solvent or acid based cleaning materials for general cleaning. Hot car tires or turning tires while car is stationary may damage the sealer. Surfaces that will be subjected to car traffic, de-icing salts or chemical exposure, must receive minimally, two applications of Clear Guard® H₂O Water-Based Cure and Seal.

Prior to re-coating, the surface and joints must be clean, dry, free from cleaning product residue, other contamination, or loose materials, which will affect the adhesion of Clear Guard® H₂O Water-Based Cure and Seal. When re-coating, a slip resistant additive must be added to the sealer.

8.1. INTERIOR FLOORS: Regularly clean by dry and wet mopping. Periodically machine scrub, rinse, and wet vacuum the surface. Apply a maintenance wax or slip resistant wax as directed by the wax manufacturer. This type of periodic maintenance will greatly enhance the appearance

of the floor and minimize the need to strip and/or reapply the sealer.

9. Quality Control: Cast a job site sample at least 21 days prior to the installation for approval of color and finish. Utilize all materials, tools, and techniques from the actual job in the mock-up. Consistent batching, pouring, finishing, curing, sealing, and preparation techniques, will ensure the uniformity of architectural concrete. Verify adequate wet and dry slip resistance. Verify maintenance requirements. Site visits by Butterfield Color, Inc. Personnel are for making technical recommendations only and not for supervising or providing quality control.

WARNING: MAY CAUSE EYE, SKIN, AND RESPIRATORY IRRITATION. **DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN AND ANIMALS.** WEAR AN ORGANIC RESPIRATOR, EYE PROTECTION, AND PROTECTIVE CLOTHING DURING APPLICATION. COVER PLANT MATERIAL. ENSURE ADEQUATE VENTILATION DURING AND AFTER APPLICATION. PREVENT FUMES FROM ENTERING THE HVAC SYSTEM. IN CASE OF SPILLAGE, ABSORB AND DISPOSE OF MATERIAL IN ACCORDANCE WITH LOCAL, STATE, AND FEDER-

AL REGULATIONS. BEFORE USE, READ THE SAFETY DATA SHEET (SDS). ALL INFORMATION IS AVAILABLE FOR DOWNLOAD ONLINE AT WWW.BUTTERFIELDCOLOR.COM AND AT POINT OF PURCHASE.

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