Clear Guard® Cure and Seal

Technical Data Sheet CG-02

MARSHALLTOWN
The Premier Line

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FOR PROFESSIONAL USE ONLY. Read all applicable and current product information for your project: Technical Data Sheet (TDS), Color Chart, Installation Guide, Material Safety Data Sheet (MSDS).

1. Description: Clear Guard® Cure and Seal is a solvent-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® Colorant and Uni-Mix® Liquid integral coloring systems, Perma-Cast® Shake-on Color Hardener, Perma-Cast® Sierra Stain™, T1000™ Fine Overlay, and T1000™ Stampable Overlay. Clear Guard® Cure and Seal is compatible with Color Guard™ Cure and Seal. It is suitable for residential or commercial projects, interior floors, exterior hardscapes, and vertical surfaces.

Clear Guard® 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® 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® 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® 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® Cure and Seal is a Methyl Methacrylate Acrylic copolymer 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 clear liquid (25% solids by weight), which dries to a high gloss, UV stable film. Clear Guard™ Cure and Seal complies with all VOC (<700 g/L) requirements and other Federal and State Air Quality Regulations. The longevity of Clear Guard® 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 recoated with adequate cleaning.

2. Limitations: Do not use 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 recoating or in conjunction with other floor sealers, treatments, bond breakers, or adhesives without prior test to determine compatibility and adhesion. Do not use to fill or repair cracks in the substrate.

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™ Cure and Seal. Interior floors may be maintained with a slip resistant wax. Test and confirm that the material is adequately slip resistant prior to opening installation to any traffic.

3. Cautions: Combustible liquid and vapor. Extinguish all pilot lights and other sources of open flame. 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 federal regulations. Before use, read the Material Safety Data Sheet (MSDS).

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

antifreeze	deicing salts
foods	fruit juices
vegetable oil	vegetable extracts
diesel fuel	petroleum oil
ethanol	power steering fluid
calcium chloride	sodium chloride

For materials not appearing in this chart, a test application is necessary.

5. Packaging:

Container	Content
Pail	5 US gallon (19.0 L)

6. Coverage: Coverage rates vary with surface texture and porosity, ambient and surface temperatures, method of application and approximate the following rates on a broom finish:
Curing: 200 ft²/gal (4.9 m²/L)
Sealing: 200-400 ft² /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.

7. Application: Clear Guard® Cure and Seal may be applied using a short nap solvent resistant roller, hand pump sprayer, or airless sprayer. Best results are obtained when product is applied at substrate temperatures in excess of (50ºF), (10ºC). Do not apply at or below (45°F) (7.2°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. Sprayer seals must be solvent resistant. Hand pump sprayers must be capable of delivering moderately viscous liquids. Care must be taken to protect adjacent areas from over spray.

7.1. NEW CONCRETE: UNCOLORED, INTEGRALLY COLORED, COLOR HARDENED: Apply Clear Guard™ 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 dry and clean. Apply in a continuous wet surface film. Application of product over excessively smooth, hard-troweled surfaces may result in adhesion loss.

7.2. 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® Cure and Seal. If MARSHALLTOWN Clear Liquid Release is used, do not apply Clear Guard® Cure and Seal until the liquid release has sufficiently evaporated (no wet sheen gloss) from the surface. Read the Perma-Cast® Antiquing Release and the Butterfield Color® Clear Liquid Release Technical Data Sheets before applying products.

7.3. EXISTING CONCRETE: 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® Cure and Seal. Very rough, porous and deeply textured surfaces may require multiple applications to ensure the formation of a protective film, without pinholes or holidays.

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 (2.5 kg/100 m2 / 24 hours). Promptly clean application equipment with Xylene following use. Handle and dispose of cleaning residue properly.

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

Prior to recoating, 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™ Cure and Seal. When recoating, 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.

8.2. NO GLOSS FINISH: Clear Guard® Cure and Seal can be modified in the field to reduce the surface shine of the dried film with Flattening Paste. It is a solvent-based silica paste that is added directly to the sealer. Add the contents of the one-quart (0.95 L) container to 5 gallons (19 L) of sealer. Do not thin or alter with any chemical. Mix thoroughly with a drill mounted mixer. Do not introduce air bubbles into sealer by excessive high speed mixing. Once Flattening Paste is added to the sealer; re-mix periodically during the application and before each use of the mixed products.

8.3. 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: 1 hour
Light foot traffic: 6 hours
Light car traffic: 24 hours
Normal car traffic: 72 hours

9. Shelf life: Two years from date of manufacture in original, unopened container.

10. 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.

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