Clear Guard® PRO 350 Cure and Seal

Technical Data Sheet CGPRO-04

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www.MARSHALLTOWN.com

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® PRO 350 Cure and Seal is a solvent-based non-yellowing, curing, and sealing compound for newly poured and existing concrete surfaces. Clear Guard® PRO 350 Cure and Seal is formulated for use in regions that require 350 g/L VOC. The product is formulated for curing and sealing uncolored concrete, integrally colored concrete, 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, Select Grade™ Integral Concrete Colorant, Perma-Cast® Shake-on Color Hardener, Perma-Cast® Sierra Stain™, T1000™ Fine Overlay, and T1000™ Stampable Overlay. Clear Guard® PRO 350 Cure and Seal is compatible with Color Guard™ PRO 350 Cure and Seal. It is suitable for residential or commercial projects, exterior hardscapes, and vertical surfaces.

Clear Guard® PRO 350 Cure and Seal visually enhances the concrete color, protects the surface from dirt and staining, and minimizes the effects 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® PRO 350 Cure and Seal provides good economical protection for exterior concrete surfaces, 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® PRO 350 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® PRO 350 Cure and Seal can also be applied to old concrete, cementitious terrazzo, and cementitious brick to dust proof and impart stain and chemical resistance.

Clear Guard® PRO 350 Cure and Seal is a Methacrylate Acrylic copolymer specifically designed to meet the moisture retention properties of ASTM C1315 (except flash point) and 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 gloss, UV stable film. Clear Guard® PRO 350 Cure and Seal complies with most VOC (350 g/L) requirements and other Federal and State Air Quality Regulations. The longevity of Clear Guard® PRO 350 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: For exterior use only. 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. If Clear Guard® PRO 350 Cure and Seal is stored in temperatures below 30°F it will become thick and unusable. Usability can be restored by taking material to warmer temperatures, usually above 60°F.

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® PRO 350 Cure and Seal. Test and confirm that the material is adequately slip resistant prior to opening installation to any traffic.

3. Chemical Resistance: Clear Guard® PRO 350 Cure and Seal provides 24-hour spot resistance to the following chemicals with little, if any, coating effect:

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

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

4. Packaging:

Container	Content
Pail	1 US gallon (03.8 L)
Pail	5 US gallons (19.0 L)
Drum	55 US gallons (209 L)

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

Curing: 300 ft²/gal (7.4 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, peeling, and diminished sealer performance. Wipe up or brush out excessive material before the film becomes tacky.

6. Application: Clear Guard® PRO 350 Cure and Seal may be applied using a short nap solvent resistant roller, airless sprayer, or hand pump industrial sprayer made for solvent based sealer and capable of delivering moderately viscous liquids in thin even layers. If roller is to be used, apply only enough material so that it may be rolled prior to the sealer becoming tacky. Do not attempt to roll the material once it has become tacky. Best results are obtained when product is applied at ambient and substrate temperatures are between 50ºF - 85ºF, (10º-29.4ºC). Do not apply at or below (50°F) (10°C) or when such temperatures are expected within 72 hours following application. 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. Clear Guard® PRO 350 Cure and Seal should be applied in two thin even coats for best results. Care must be taken to protect adjacent areas from over spray.

6.1. NEW CONCRETE: Apply Clear Guard® PRO 350 Cure and Seal as a curing agent immediately following final finishing and after the slab is firm enough to walk on without damage. Do not apply if any moisture is present on the surface. 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.

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6.2. COLORED STAMPED OR STENCILED CONCRETE: After concrete has been stamped using a liquid or powder release agent allow the concrete to cure for a minimum of 24 hours, before the washing procedure begins. Thoroughly remove the residual release powder or liquid release by washing and scrubbing. After cleaning and rinsing, allow the concrete to dry for a minimum of 24 hours before beginning the sealing process. The concrete must be thoroughly dry before applying Clear Guard® PRO 350 Cure and Seal. Read the Perma-Cast® Antiquing Release and the MARSHALLTOWN Clear Liquid Release Technical Data Sheets before applying products.

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 (2.27 kg/92.9 m^2 per 24 hours). Promptly clean application equipment with xylene following use. Handle and dispose of cleaning residue properly.

6.3. 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® PRO 350 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.

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7. Maintenance: Periodically inspect cured and sealed surfaces for wear or damage. All concrete curing and sealing compounds will eventually exhibit the effects 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® PRO 350 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® PRO 350 Cure and Seal. When recoating, a slip resistant additive must be added to the sealer.

7.1. NO GLOSS FINISH: Clear Guard® PRO 350 can be modified in the field to reduce the surface shine of the dried film with Butterfield Color® 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 (18.93 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 Butterfield Color® Flattening Paste is added to the sealer; remix periodically during the application and before each use of the mixed products.

7.2. 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

8. Shelf Life: Two years from date of manufacture in original, unopened container.

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. Discuss maintenance requirements.

WARNING: FLAMMABLE 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).

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