

# APPLICATION SHEET

## SUBSURFACE / WATER & SALT RESISTANT HARDENER / COLOR GUARD

# GREEN UMBRELLA® SHIELD & ENHANCE



Indoor



Outdoor

### Application Ratio:

400-600 SF per gal.

### Application Ratio w/GreenCut™:

500-700 SF per gal.

### Dwell Time:

30 min.

### Drying Time:

30-60 min. @75F & 50% RH to foot traffic, 3 hours to wheel traffic

### IMPORTANT:

Read Technical Data Sheet and SDS prior to application. Follow all directions, including safety information. Installer education, training and appropriate handling is necessary for product success. Due to the variety of concrete, the applicator must test the product for compatibility prior to full application.



Broom



Autoscrubber



Sprayer



T-Bar



Grinder



Burnisher

### Surface Preparation

@EarlyAge, @MatureAge, or @Profile&Polish concrete should be free of all surface debris and potential contaminants—dust, dirt, oil or food spills. To attack subsurface contamination, pre-treat the substrate with Green Umbrella GreenClean & Degreaser (not a shock treatment) following manufacturer instructions. Any topical coatings or sealers — including film-forming cure and seal, wax, etc. — must be completely removed prior to application.

### Environmental Conditions

For Shield & Enhance to effectively penetrate the substrate, the temperature should be 40°F and rising, not exceeding 90°F. For windy conditions or temperatures exceeding 95°F (35°C) on @EarlyAge & @MatureAge concrete: Consult ACI 305R-20 for Wind Advisory.

### @EarlyAge Concrete & @MatureAge Concrete:

1. Shield & Enhance is R.T.U.<sup>2</sup> and should be applied S.O.L.O.<sup>1</sup> to a clean surface with a clean, non-metal, dedicated GU recommended sprayer with a drip-free conical tip. Spray evenly on the surface following manufacturer recommended application ratio.
2. **Application Ratio:** Yield will vary depending on the concrete surface. Broom finish 250-350 SF per gallon, Trowel finish 400-800 SF per gallon.
3. **Do Not Broom @EarlyAge concrete prior to the 3rd day.** If necessary to distribute next-day treatment, use a GU T-Bar with a clean pad to ensure uniform coverage, or disperse puddles — no need for agitation.
4. **Dwell Time:** 20 minutes for full reaction. Product will not gel or require rinsing.
5. **Dry Time:** 1 hour. Allow product to air dry. If treatment is not dry within one or two hours, indirect blowers or fans may reduce dry time. Do not attempt to use direct air movement over the treated surface, doing so may produce an undesirable finish that may require grinding to repair. Environmental controls will facilitate consistent dry times.
6. If unreacted material would exist, remove it with a broom, after the product has completely dried.

# TIME, TEMPERATURE & HUMIDITY

For a chemical reaction to take place successfully, time must be allocated for the full reaction. When applying Green Umbrella Shield & Enhance to concrete, there must be an adequate amount of dwell time for the reaction to take place successfully. Proper dwell time will help to achieve the best result. For Shield & Enhance to effectively penetrate the substrate, the temperature should be 40°F (4°C) and rising for several hours from application forward. If temperatures are lower than recommended, the chemistry may take much longer to react and penetrate the concrete substrate. If the temperature exceeds the recommended maximum of 95°F (35°C), or if conditions are windy, the chemistry could react and dry before penetrating the substrate.

Humidity also plays a role in the dry time. The product applied to a dry concrete surface in an arid climate will dry faster than in a humid environment. In a PHP process, several treatments are being applied - product staging should be planned to meet all treatment dwell times and dry times. It is recommended to use dew point data from a mobile hygrometer to determine the best staging of concrete treatments to eliminate needless downtime. The use of on-site hygrometers and thermometers can provide meaningful data to promote treatment application success.

7. **Time to Traffic:** For best results - light foot traffic when dry, or after 1 hour. Wheeled traffic after 1-3 hours.

## @EarlyAge & @MatureAge Concrete To Be Abrasively Polished

When desiring an @EarlyAge profile, use the Green Umbrella GreenIce Cure System™ during and immediately after concrete placement & finishing, proceed with abrasive hone and polish process a few days after the pour. Consult IceStart™ and IceStop™ TDS for details.

1. Profile or Hone to achieve a specified or desired profile, aggregate reveal or class of grind with GreenCut™ liquid cutting agent and GC™ abrasives. Consult GreenCut™ TDS for details. For best results use equipment designed with the weight and RPM to produce planetary action (active or passive).

2. When NanoDye™ colorants are used, the floor must be in the dry, protected from the elements such as standing water or UV exposure. Green Umbrella NanoDye™ indoor colorants must be applied before proceeding with Shield & Enhance application. Consult NanoDye™ TDS for details.

3. Double-scrub with an auto-scrubber equipped with GU recommended pads/brushes.

4. Dust Mop using a clean, untreated head to remove any potential surface contaminants.

5. Shield & Enhance is R.T.U. and should be applied S.O.L.O. to a clean surface with a clean, non-metal, dedicated GU sprayer.

6. Application Ratio: 600-800 SF per gallon. Yield based upon use with Green-Cut and will vary depending on the concrete surface.

7. Plan application to maintain a wet edge and work toward an exit. Spray onto concrete and applicator using the weighted T-Bar to distribute evenly. Maintain a wet edge, exercise caution to connect passes without tearing drying product. Do not re-apply to fast drying areas. Work toward the exit. Do not walk over the freshly placed or wet surface.

8. T-Bar Note: Change applicator pads frequently to prevent surface contaminant build-up which may affect final finish. Clean used T-Bar pads using clean water for future re-use.

9. Overspray: Immediately wipe with a wet cloth and follow with a dry cloth to remove treatment from finishes or furniture after contact.

10. Dwell Time: 20 minute wet finish for full reaction. Product will not gel or require agitation or rinsing.

11. Dry Time: Allow product to air dry. The surface should be dry 1-3 hours prior to using a PolishPlus™ abrasive. If treatment is not dry within one or two hours, indirect blowers or fans may reduce dry time. Environmental controls will facilitate consistent dry times.

12. Time to Traffic: For best results - light foot traffic when dry, or after 1 hour. Wheeled traffic and profiling after 1-3 hours.

13. Shield & Enhance is designed to be introduced into the substrate before abrasive polishing. Polishing may be passive or active planetary, trowel or concrete grinder. High RPM, using a PolishPlus abrasive.

14. Proceed with PHP process and specified treatment system. (Polish, Interior MicroFilm for MaxDefense and MaxDefense with Color System).