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# **PROTECT**<sup>™</sup>

Superior strength **concrete hardener**, **sealer** and **protectant** in a **ready to use formula** with advanced stain protection.

**CONCRETE HARDENER / SEALER / PROTECTANT** 

Nanotechnology. Matte Finish. Non-hazardous.

### **DESCRIPTION**

Superflat® Protect™ is a superior strength concrete densifier and chemical hardener, sealer, and protectant in a ready to use colorless liquid formula. Protect™ hardens and dustproofs concrete with nano-sized particles with advanced stain protection. The reacted surface creates an environment that does not welcome moisture or topical water spills. Treated surfaces will keep common spills and other moisture suspended on the surface of the concrete substantially longer than untreated surfaces.

After application, Superflat® Protect™ is not water soluble and will not break down. Once properly applied, the finished surface provides substantial improvement in abrasion resistance and will significantly improve the durability of the surface when compared to untreated concrete.

Once Superflat® Protect™ is applied the chemical reaction takes place, producing a byproduct that fills in the pores of the concrete one molecule at a time, closing down the surface of the concrete and preventing excessive vapor loss for a slower curing process

making for a much stronger substrate. Tested PSI proves to increase by 40%.

Superflat® Protect™ solidifies the concrete, eliminating dusting, pitting and excessive wear. It is chemically engineered to provide simple, quick, sustainable performance.

Superflat® Protect™ is simply sprayed on and left moist on the surface for 20 minutes. In this short period of time, the colorless liquid quickly penetrates into the surface.

Unlike traditional densifiers, Superflat® Protect™ does not require brushing into the surface, rinsing, or removal of excessively applied material. After application, the resulting surface will feature enhanced protection and sheen, coupled with superior abrasion resistance.

This environmentally safe, water-based product features a zero VOC content and provides an attractive option in green building applications.

## **FEATURES / BENEFITS**

- Nano-sized molecular reaction penetrates deeply into concrete to densify and harden surfaces to help prevent entry of moisture and other foreign matter
- Quick, easy and hassle-free application procedure (no flushing or rinsing required)
- Does not require brushing into the surface or rinsing
- Dustproofs and improves abrasion resistance of treated surfaces
- Provides a permanent, hardened surface with the ability to quickly polish

- Protects against scratching or peeling
- Provides a hardened, protected surface that will not yellow or discolor
- Drastically improves light reflectivity with single application
- Compatible with solvent based topical sealers
- · Ready to use formulation and easy to apply
- · Indoor and exterior use
- · Environmentally safe and non-hazardous
- No VOC's



### **SPECIFICATIONS**

- Complies with all state and federal allowable VOC requirements
- Treated surface passes all minimal Static Coefficient of Friction (SCOF) standards
- Recommended for use wherever chemically treated, densified, hardened, dustproofed, and improved abrasion resistant surfaces are required in wet or dry environments.
- Ideal applications include floors in industrial plants and warehouses.
- Should be used in conjunction with other Superflat® Concrete Enhancement™ products after the proper Ra (roughness average) is achieved

### **COVERAGE / APPLICATION RATE**

**Types of Surface ft.²/Gal M²/Gal**New or Existing 500 37 – 46.45

Note: Coverage rates may vary slightly depending on the spray delivery system and/or operator and/or both. Applied material must be applied to the point of rejection and remain wet on surface for a minimum of 20 minutes. If applied product dries before this time, point of rejection has not been achieved and reapplication of a necessary amount of product needs to occur until it remains wet on surface for 20 minutes.

# **USES**

Superflat® Protect™ is recommended for use wherever chemically treated, densified, hardened, dustproofed, and improved abrasion resistant surfaces are required in wet environments. Ideal applications include floors in industrial plants

and warehouses. Superflat® Protect™ is also used in conjunction with Superflat® Assist™ in the process of polishing newly placed or existing concrete substrates using the Superflat® Concrete Enhancement™ system.

# **APPLICATION**

Superflat® Protect™ does not require mixing. Apply with a low-pressure sprayer or auto-scrubber. Superflat® Protect™ can be spread with a roller, broom or auto scrubber to ensure uniform coverage. Keep the surface wet with Superflat® Protect™ for a minimum of 20 minutes. If areas become dry before 20 minutes, re-wet areas with more Superflat® Protect™. Allow to air dry until it is no longer wet to the touch. Do not attempt to remove applied material from the surface of the concrete. Superflat® Protect™ is not film forming and does not require any removal steps. After Superflat® Protect™ has dried, any unreacted material will easily sweep or wash from the surface, and can be disposed as non-hazardous waste according to local regulations.

For optimum results, apply Superflat® Protect™ a minimum of 5 days after new placement of concrete. Surface should always be clean and structurally sound. Remove all residues, curing compounds, oils, sealers, contaminants, and laitance before applying to existing/old concrete.

D-Limonene Orange Cleaners may be used on existing slabs for cleaning heavy contaminated areas before the densification

process if necessary. Fill and repair all holes, cracks, and any other areas of concern.

Fresh Concrete: Apply undiluted Superflat® Protect™ per proper application rates using a Hudson style pump sprayer or by spreading evenly with a soft-bristled broom. No further application steps are required for newly placed concrete. Cure the concrete with a wet or sheet cure method in accordance with ASTM C309, CI 315, or with a film forming cure and seal. If a non-dissipative cure and seal is used it must be completely stripped in accordance with the manufacturer's directions. A wet cure is always preferred over cure and seal type products. New concrete should cure for 7 days. Standing water should be removed from the surface prior to the application of Superflat® Protect™. The surface should be clean and free of any contaminates that could impede the chemical reaction of Superflat® Protect™.

**Existing Concrete:** Saturate the surface with undiluted Superflat® Protect™ with Hudson style pump sprayer, squeegee, or broom. Keep surface moist for 20 minutes (point of rejection).

# **ADDITIONAL INFORMATION**

### **PACKAGING**

5 Gallon (18.93 Liter) Pails | 55 Gallon (208.20 Liter) Drum *Typical shelf life is 1 year in original, unopened container.* 

**PRECAUTIONS / LIMITATIONS:** DO NOT OVER DILUTE. Do not apply if the temperature of the concrete is less than 38° F (3° C) or above 165° F (74° C). KEEP FROM FREEZING. If frozen, product should be thawed and agitated slightly prior to use. In extreme heat, over 95°F, it is recommended to wet the surface with water prior to application of Superflat® Protect™.

Pay particular attention to porous and/or dry areas. These areas must be wet at all times with Superflat® Protect $^{\text{TM}}$  and remain wet for a continuous 20 minutes. After the final 20-minute dwell time, let the entire surface dry.

- Allow to dry for 1 to 2 hours prior to exposure to traffic.
- When used as a stand-alone product, Superflat® Protect™ is not a curing compound.

**BURNISHING:** Superflat® Protect™ can be burnished to a high sheen on steel trowel concrete floors. A high-speed burnisher (2000-2200 rpm) with medium to coarse maintenance pad is needed. Diamond impregnated pads are acceptable as well.

**WARNING:** Immediately wash off over-spray from glass, aluminum, wood, paint, brick or highly polished surfaces with potable water to avoid etching of surfaces.

# May help contribute to LEED credits:

- EQ Credit 4.2: Low-Emitting Materials: Paints & Coatings
- MR Credit 5.1: Regional Materials: 10% Extracted, Processed & Manufactured Regionally
- MR Credit 5.2: Regional Materials: 20% Extracted, Processed & Manufactured Regionally

**HEALTH HAZARDS:** Superflat® Protect™ is non-combustible. (Flash point is >210° F.) Direct contact will result in irritation of the skin and eyes. Inhalation of product mist may result in respiratory irritation. Refer to Material Safety Data Sheet for complete health and safety information.

**LIMITED WARRANTY:** Superflat® warrants at the time and place we make shipment, our material will be of good quality and will conform with our published specifications in force on the date of acceptance of the order. Read complete warranty. Copy furnished upon request along with disclaimer.

