Sealer

Technical Data Sheet

CODE: Xtreme Shield

Colloidal Silica is at the heart of concrete technology. It is a substance that reacts with the chemistry of concrete to produce more cementitious material, which translates into higher performance concrete.

PRODUCT DESCRIPTION

Xtreme Shield is a colloidal silica-based breathable penetrating concrete sealer that protects concrete floors and enhances the appearance of decorative concrete finishes. It is a unique product that improves surface hardness through colloidal silica reaction, and is formulated to promote water repellence.

Xtreme Shield is used as the final step of the concrete polishing process. It protects against staining and etching agents, and minimizes abrasive wear to the finish. Its colloidal silica content extends the hardening begun by Xtreme Hard Densifier during polishing stages. It contains ingredients to confer water repellence on the surface.

Xtreme Shield enhances concrete appearances in both color and texture. Though clear and non-yellowing, it deepens color and apparent saturation. On a polished surface, it can be burnished to a high gloss, and periodically re-burnished to refresh appearance. Nonetheless, it improves slip resistance for a safer floor.

FEATURES & ADVANTAGES

Xtreme Shield can be applied to newly finished concrete, or polished concrete that has been previously protected but needs to be renewed or refreshed. It provides multiple advantages and benefits:

- Extends stain-resistance
- Increases slip-resistance
- Increases surface hardness
- Enhances appearance and deepens color
- Improves gloss
- Clear, non-yellowing
- Can be burnished periodically to restore gloss
- Cures for foot traffic in 24 hours
- Simplifies maintenance
- Water-based

SUSTAINABILITY

Exposed concrete is an inherently sustainable flooring solution that is durable, and offers a very long service life with only simple maintenance. It lowers materials and energy-consumption by eliminating the need for frequently replaced floor-covering materials.

In many situations, the concrete itself is already installed, further reducing material-consumption. Exposed concrete floors require minimal, low-impact maintenance, thereby lowering maintenance energy-consumption and eliminating harsh chemicals and solvents used to strip and wax some floor coverings.

- Low VOC formula
- Ships as concentrate to lower environmental impacts, shipping and storage costs
- Low-impact maintenance with mild, non-solvent cleaners
- Maintains floor finish, reducing energy-consumption for floor refinishing

MATERIALS PACKAGING

Xtreme Shield is packaged as a concentrate, minimizing shipping and handling expense.

1 Gallon / 3.78 litter container ..... (Concentrate)
5 Gallon / 19 liter bucket ..... (Concentrate)

Xtreme Hard Densifier concentrate is intended to be diluted with water before use. *(See section: Mixing & Dilution)

COVERAGE RATES

We will yield different coverage results depending on the porosity of the floor. Test on a small sample area to determine appropriate application rate and technique before applying to entire project area. *(See section: Project Testing)

Use these coverage rates as a starting point to determine a necessary application rate:

RTU mixture ..... 1,200 – 1,800 sf/gal (37 – 49 m2/L)

The coverage rates are based on a mixed ready-to-use (RTU) gallon of Xtreme Hard Densifier. *(See section: Mixing & Dilution)

*Important: (See the coverage chart on last page)

SAFETY PRECAUTIONS

WARNING: FOR PROFESSIONAL USE ONLY. BEFORE USING PRODUCT, READ MATERIAL SAFETY DATA SHEET (MSDS) AND INSTRUCTIONS ON PACKAGING. ALKALINE CONCENTRATE: CONTACT CAN DAMAGE EYES, SKIN, AND OTHER BODY TISSUES. HANDLE WITH CARE. EYE AND SKIN IRRITANT. DIGECTIVE TRACT IRRITANT; DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN. SPRAY MIST IS RESPIRATORY TRACT IRRITANT. USE ONLY WITH ADEQUATE VENTIALTION. Do not breath vapors or spray mist. Avoid contact with eyes, skin, and clothing. Observe appropriate safety and jobsite controls. Wear appropriate protection including eye protection and chemical resistant gloves. Ensure fresh airflow during application and until dry. If you experience headaches, dizziness, eye watering, or if air monitoring shows vapor/mist levels above applicable limits, wear a

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properly fitted P100/organic vapor respirator (NIOSH TC-84A approved), used according to manufacturers directions, during application and drying.

MIXING & DILUTION

Xtreme Shield is shipped as a concentrate. Before use, it must be diluted with clean potable water in a ratio of 1:1.

1. Before opening Xtreme Shield container, shake to agitate the concentrate.

2. Pour one part Xtreme Shield concentrates into mixing container or directly into sprayer.

3. Add 1 part clean potable water to make Xtreme Shield Ready-To-Use (RTU) mixture.

4. Mix for 30 seconds using low-to-medium speed drill and mixing paddle, or shake sprayer for 60 seconds, until mixture is homogeneous and uniform.

We recommend calculating the quantity of material needed for the immediate work at hand, and only making as much Xtreme Shield RTU mixture as needed. Left over RTU mixture can be stored in an air-tight container, and needs to be used within 2 months after being mixed from concentrate, or the stated expiration date, whichever comes first. Manufacturing date can be found within the batch number on the original packaging. Over prolonged periods of time, RTU mixture may settle. Before using RTU mixture, agitate container to mix contents.

*Important: The water used to dilute Xtreme Shield concentrate must be clean potable water. Any contaminates in the water could reduce shelf life of RTU mixture.

EQUIPMENT

- Apply using a low-pressure pump sprayer.
- Spread with a micro-fiber or flat cotton pad applicator.

PRE-APPLICATION

Advanced planning is critical to all successful concrete work, including the use of Xtreme Shield.

Any adjacent areas, surfaces, or objects not intended to be treated with Xtreme Shield should be protected from overspray or drift with plastic sheeting or other proven protective material.

Measure area (square feet/m2) that will require Xtreme Shield.

Mix an appropriate quantity of Xtreme Shield for job-size, per instructions in section: Mixing & Dilution, using estimated coverage rates in section: Covering rates.

Check that sprayers and tips are in working order.

Designate trained operator(s) to apply Xtreme Shield throughout project, to ensure consistent application.

PROJECT TESTING

To assure that performance and slip-resistance specifications are met, and that desired appearance is achieved, test a sample area of each slab to be treated, applying the complete sequence of proposed treatments using the proposed methods and techniques, coverage rates, and equipment, with the work performed by the same installation personnel who will do the project. Test section should be large enough to properly represent the overall slab. Specific to Xtreme Shield, check whether coverage rate is appropriate, that concrete accepts the product, and that desired appearance is achieved after burnishing. Test to determine that safe levels of wet and dry slip- resistance are achieved after application of Xtreme Shield improves slip-resistance.

APPLICATION GUIDELINES

Application of Xtreme Shield may vary depending on the type of project and other jobsite specifics. The information provided is best practice guidelines for Xtreme Shield. Every project will present variables that may require adjustment of application procedures during the job. These guidelines are based on terminology used within the concrete and flooring industry sector.

1. Agitate Xtreme Shield RTU mixture before pouring into sprayer.

2. Pour Xtreme Shield RTU mixture into sprayer. Keep sprayer at optimized levels, allowing even distribution when applying to concrete surface.

3. Dampen a micro-fiber or flat cotton pad applicator with Xtreme Shield

4. Spray apply Xtreme Shield to concrete surface in a light mist, holding spray tip 12-24 inches above surface and moving in a circular motion to achieve even distribution.

5. Use the pad applicator to spread the Xtreme Shield spray in a thin film coat, using a "figure 8" motion to reduce streaking and prevent puddling. Work leaving a wet edge. Work-in areas bordered by joints or natural breaks. If product becomes too "sticky" to work easily, moisten applicator pad with water.

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6. Allow drying tack-free before burnishing or applying a second coat.
7. Apply second coat using the same procedures, steps 1-5.

High speed burnishing using a diamond-impregnated fiber pad, or hogs-hair fiber pad, will enhance the finished surface.

Cure finished floor for 24 hours before allowing regular foot traffic. Do not allow standing water to remain on the surface for the first 72 hours. Xtreme Shield is intended for interior use.

MAINTENANCE

Only an approved maintenance regimen should be used. Remove dust and debris daily. Clean daily or weekly using Xtreme Clean or other neutral pH cleanser. Avoid acidic cleaners and detergents containing hydroxides or sulfates as these may etch or dull the surface. Consult Xtreme Polishing Systems for more information.

LIMITATIONS & IMPORTANT NOTES

Xtreme Shield is a breathable penetrating concrete sealer, but it must be considered a sacrificial layer requiring periodic renewal, not a permanent sealer.

Xtreme Shield is not a membrane-forming curing compound.

Xtreme Shield provides temporary protection from staining and etching agents, but it will not seal or prevent staining indefinitely. Spills must be removed in a timely manner to assure complete protection of the floor finish.

The original installer should check performance of the Xtreme Shield application yearly or another qualified professional, to determine when renewal of the protection is required.

Jobsite samples are strongly recommended prior to application of all Xtreme Polishing Systems' products.

XTREME SHIELD SEALER USED WITH

Xtreme Hard ..... (Larger particle densifier)
Xtreme Shield..... (Color enhancer & stain reducer)
Xtreme Cleaner ..... (Colloidal silica cleaning agent)
Xtreme Colorz..... (Penetrating colorant concentrate)

PHYSICAL PROPERTIES

Appearance ..... milky white liquid
Drying Time ..... 20 minutes to 1 hour
VOC Content ..... 25 g/l
Active Ingredients ..... 100% of total solid
pH 10-11
Freeze point ..... 32 F
Shelf Life ..... 1 year
Coverage ..... 1500-2000 ft2 / gal (37m2 – 49 m2/L)

STORAGE & SHELF LIFE

Xtreme Shield should be kept in the original container when possible, with the lid fastened tightly. Xtreme Shield concentrate has an optimized shelf life of 12 months from the date of manufacture. This date is available on the batch reference number on the original container.

Storage of RTU mixture: Section: Mixing & Dilution

Keep in a cool, dry place raised off the floor. Keep in temperature range from 40-100 F / 4-38 C

*Important: Do Not Allow To Freeze

FIRST AID

Ingestion: Not expected to be toxic. Never give an unconscious person anything to ingest. If swallowed, immediately give to glasses of water, DO NOT INDUCE VOMITTING. Seek medical attention if ill effects develop.

Inhalation: May cause irritation. Remove to fresh air and provided oxygen. If not breathing, give artificial respiration. Seek medical attention if irritation persists.

Eye Contact: Flush with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.

Skin Contact: May cause irritation. Wash affected area with soap and water. Remove contaminated clothing and shoes. Seek medial attention if irritation persists.

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**Updated May 2015. Subject to change. Contact Xreme Polishing Systems.*

The chart offers generalized guidelines of application rates and recommended diamond-grit stages for application of Xtreme Hard Densifier, according to the condition of the slab. High porosity or heavily damages concrete could require multiple applications of Xtreme Hard Densifier. In some instances, Xtreme Hard Densifier XL, which features larger silica particle size, may perform more efficiently in "rescuing" soft or damaged slabs. Both densifiers work well together to solve many problematic polished concrete issues.

Concrete Condition	Possible Applications	Basic Coverage	Second Coat Coverage
Porous Condition Concrete	*2 Coat Application*	1000– 1200 ft per Gallon	1200 - 1800 ft per Gallon
Normal Condition Concrete	*1 Application*	1200 - 1800 ft per Gallon	***Optional:*** 1500 - 2000 ft per Gallon
Hard Condition Concrete	*1 Application*	1500 - 2000 ft per Gallon	***Optional:*** 1500 - 2000 ft per Gallon

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