

DESCRIPTION

ToughCrete is a concentrated silane/siloxane water based emulsion designed to repel water and salts from applied porous construction surfaces. ToughCrete is not a topical coating. Rather, it penetrates into the applied substrate and creates a chemically bonded network of polymers that repel water and salts on common construction materials such as concrete, block, masonry, stone and a variety of other porous interior and exterior surfaces.

ToughCrete seals and enhances porous surfaces by creating a hydrophobic barrier that sheds water and salts from the applied surface. ToughCrete is considered a breathable penetrating sealer as it allows water vapor to enter and exit the substrate. ToughCrete is made from the highest quality raw materials, ensuring long lasting results, and ToughCrete is proudly made in the USA.

PREPARATION

Clean concrete surfaces of all sand, surface dust and dirt, oil, grease, chemical films and coatings and other contaminants prior to application. Power wash, sandblast, or shotblast as necessary to achieve the desired surface condition.

Protect all adjacent surfaces not intended for treatment; including people, vehicles, property, plants, and windows from potential product application, its overspray, splash, and residue. Use a protective covering material, such as polyethylene, to protect these surfaces. Divert pedestrian and auto traffic from applied surfaces. Ensure fresh air entry and cross ventilation during the application and drying.

When applying to exterior structures, make sure all windows, intakes and air conditioning vents are covered. Shut down air handling equipment during application until odor has dissipated.

ADVANTAGES

- Easy to use
- Fast beading action
- Excellent water repellency
- Breathable
- No harsh Solvents
- Water based - Soap & water clean-up
- Non-yellowing, minimal color change
- Non gloss
- Non slippery
- Resist oil
- Reduces rusting of rebar in poured surfaces
- Reduces concrete spalling

LIMITATIONS

- Product is not suitable for low-porosity substrates, such as polished stones
- Slightly darkened of substrate - if any
- Will not penetrate through paint or traffic markings
- Product is not tested nor represented as suitable for medical, pharmaceutical, or food grade use

PACKAGING

- 1 Gallon Jugs
- 5 Gallon Pails

COLOR

Milky white; dries clear

YIELD

- Concrete: 100-200ft /gal
- Brick: 100-200ft /gal
- Always apply a test area to determine actual coverage rates. Coverage rates will vary greatly with the porosity of the substrate.

CURE TIME

- 1 hr to the touch
- 12 hrs foot traffic
- 24-36 hrs vehicular traffic

STORAGE

When stored between 33 and 77F (1 and 25C), the ToughCrete has a shelf life of 24 months from the date of manufacture. Store in a cool, dry place away from potential ignition sources.

SHELF LIFE

24 months when product is properly stored

SURFACE/AIR TEMPS

Surface and air temps must be at least 40F (4C) during application and for 8 hours following. If freezing conditions exist before application, let masonry thaw.

APPLICATION

Always wear personal protective equipment when handling ToughCrete. Protective eyewear, protective clothing and gloves are recommended. Accidental personal exposures can be reduced by moving an individual to fresh air if breathing problems occur. In case of accidental exposure to skin, thoroughly rinse with water for 15 minutes, then clean area with soap and water. In case of accidental eye exposure, thoroughly rinse eyes with water for 15 minutes. Avoid ingestion. Always test a small area of each surface to confirm suitability, coverage rates, and desired results before starting overall application. Prepare surface and design procedures before project application.

DILUTION AND MIXING

Dilute ToughCrete and mix with clean, potable water only. ToughCrete can be mixed and diluted in any vessel of appropriate size including a yard sprayer or a plastic bucket. Mixing vessels must be clean, dry, and free of contaminants. ToughCrete concentrate must be mixed a minimum of 1 part ToughCrete to 1 part water. Mix, shake or stir solution completely.

RECOMMENDED MIX AND PERFORMANCE RATIOS:

- 1 part ToughCrete to 1 part water for 20 year performance
- 1 part ToughCrete to 2 parts water for 10 year performance
- 1 part ToughCrete to 3 parts water for 5 year performance

Coverage rates depend on the porosity of the substrate and its finish. Highly porous substrate with high surface area will absorb more Toughcrete than a less porous, smooth finished substrate. In general, 1 Gallon of diluted ToughCrete will treat 150 square feet of substrate. Coverage rates will vary.

INSTRUCTIONS

Apply to a clean, visibly dry and absorbent surfaces only.

Small Vertical or Horizontal Surface

Brush/Roller Application

Recommended for small scale application only or when spray application is not appropriate: Apply uniformly using a 1/2" nap roller suitable for water based products. Apply enough ToughCrete to saturate the surface. Allow the solution to penetrate the surface for 5 minutes, then brush out heavy runs and drips that do not penetrate. Wet on Wet re-coat is suitable and recommended within 20 minutes. Dry time to touch is 4 hours and service cure time is 24 hours.

Large Horizontal Surfaces

Yard Sprayer/Other Broadcast Spraying Equipment

Apply ToughCrete in a single, saturating application. Apply enough ToughCrete so that a visible white/milky coating is seen on the surface. Allow coating to penetrate for 5 minutes. Then using a broom, brush, or a 1/2" nap roller, spread out any puddles or runs until they penetrate the surface. Dry Time is 4 hours and service cure is 24 hours.

Dense, Smooth Horizontal Surface

Yard Sprayer/Other Broadcast Spraying Equipment

Apply ToughCrete in a single coat using enough to completely wet the surface WITHOUT creating drips, puddles, or rundown. Using a Broom or 1/2" nap roller, push or back roll ToughCrete into the surface until uniform in appearance. DO NOT OVER APPLY. Over application may cause unacceptable color change.

DRYING TIME

Treated surfaces will dry to touch within 1 hour. Protect surfaces from rainfall using plastic for a minimum of 4 hours following treatment. Protect from foot and vehicle traffic until visibly dry. Surfaces may require as many as 72 hours to gain their water repellency properties. Lack of water beading is not an indication of product performance.

REMOVAL

ToughCrete can be removed from surfaces by saturating the surface with xylenes. Keep surface saturated with xylenes for 15 minutes and then absorb the solution with oil absorb or other suitable absorbents. Apply detergent and water to removal area and clean. Protect all waterways and drainage areas from contaminants.

PAINT ADHESION

Treated surfaces may be coated with most silicone emulsions and many oil based paints after ToughCrete has been applied and allowed to cure for 72 hours. Always test a small area to ensure paint adhesion. Adhesion may be improved if surface is pressure rinsed and allowed to dry before application. Adhesion of some cementitious coatings, plaster, stucco, etc., may be adversely affected.

LIMITED WARRANTY

The information contained in this document is offered in good faith and is believed to be accurate. However, because conditions and methods of use are beyond our control, this information should not be used in substitution for customer's tests to ensure that this product is safe, effective and fully satisfactory for the intended end use.



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