

TRÜNANO™ STONE ARMOR

Complies with SCAQMD
 VOC: Less than 100 g/L
 LEED 7 Points CARB

DESCRIPTION

TruNano™ Stone Armor is a clear coating for Marble, Limestone, Travertine and Onyx surfaces. TruNano™ Stone Armor protects stone from normal destructive forces, providing a long lasting barrier with superior resistance against moisture intrusion, stains, mold, food acids abrasion and chloride ion penetration. TruNano™ Stone Armor is ideal for use in kitchens, restaurants and harsh environments on old and new honed or polished stone surfaces. For professional use only.

NOTE: TruNano™ Stone Armor is available in a Gloss or Satin finish.

SURFACE

Marble, Limestone, Travertine, Tumbled Marble, Onyx and other Natural Stone.

SOLUTION

Moisture, Stains, Mild Acids and Abrasion.

MATERIAL RESISTANCE CHART

CHEMICAL	RESULT
Moisture	No Effect
Dirt	No Effect
Mild Acids	No Effect
Stains	No Effect

CHARACTERISTICS

Color: Translucent red or pink
 Finish: Gloss or Satin
 Vehicle Type: Solvent Base
 Flash Point: (C Penskey-Martens closed Cup)
 16.7C/62.1F
 VOC: less than 95 g/L
 Weight per Gallon: 7.36 lbs.
 Non-breathable
 Not for use as a hydrostatic barrier

COVERAGE

Substrate	Sq. Ft./Gal.
Limestone	250-300 Requires 2 coats!
Marble	300- 400
Travertine	300-400
Tumbled Marble	300-400
Onyx	300-400
Polished Marble	400-600

NOTE: Coverage will vary depending on the porosity and texture of the substrate. Substrates with high porosity will require more product, resulting in a lower coverage rate.

SPREAD RATE

Recommended Spread Rate per coat:
 Wet mils: 4.0
 Dry mils: 2.4

EXPECTED WEAR

TruNano™ Stone Armor will protect the substrate, if properly maintained and provided the surface is not exposed to a highly abrasive atmosphere, for up to 3 to 5 years. It is highly recommended that the substrate be inspected on an annual basis to determine environmental wear on the surface.

SURFACE PREPARATION

Prior to the application of StoneArmor all surfaces and substrates must be clean, dry, and in sound condition. It is extremely important that all oil, dust, grease, dirt, loose rust, and other foreign material be removed.

Removal of All Existing Coatings or Curing Compounds

To determine if the surface is sealed with another coating or curing compound, sprinkle water onto surface. If the water is absorbed and the surface becomes darker, it has not been sealed. If the water beads up there is a coating or curing compound that must be removed to allow proper penetration.

Silicone Sealer Removal

If the surface has been previously sealed with a silicone sealer, the silicone must be removed entirely. To remove silicone sealers, clean surface with a solution of 80% water and 20% vinegar. Wet surface with water and vinegar solution and let stand 10 minutes. Remove solution and rinse thoroughly with clean water. Flush with fresh clean water. Surface must then be neutralized with a mixture of 50% baking soda and 50% water. Spraying neutralizing solution onto the surface and let stand, then rinse with clean water. Use of a hot water pressure washing system will enhance cleaning application.

NOTE: pH level must be between 7 and 10. The rising moisture vapor emission rate must not exceed 3 pounds per 1,000 square feet (3 lb/1,000 ft²) over a 24-hour period as measured by the calcium chloride test method, ASTM F-1869. Surface measuring equipment can provide a wide variety of results. Tramex Concrete Encounter CME 4 digital moisture meter is recommended with a reading of 3% or below. If using a meter other than the Tramex, rely upon the ASTM F-1869 reading as a cross-reference.

Polished Stone Surfaces

On new, unsealed marble, travertine or onyx, lightly sand the surface with 360 to 400 grit sandpaper using a random orbital sander. This abrasion will allow for proper adhesion of the coating. Some stones may be too hard for the 360 or 400 grit abrasives to cut through. If this occurs, go down in grit size to 220 or even 120 until the surface is abraded. Then go back up in grit size to finish at 360 to 400. Make certain the surface doesn't contain "J" hooks", half moons" or other types of deep scratches as they may appear under the clear coating, requiring re-sanding and starting over.

SURFACE PREPARATION - Continued

Once sanded, clean the surface well with a 50/50 mixture of water and acetone to remove all slurry and dust from sanding. Straight acetone never completely removes slurry, therefore it must be mixed with water to hydrate the dry dust. It is extremely important all dust is cleaned out of the pores of the stone, otherwise the coating will not achieve adhesion where dust remains. Stone needs to be tack clothed and completely dry before application of coating.

Honed Stone Surfaces

On new, unsealed honed marble, travertine, limestone or onyx there is no need to abrade the surface by sanding. Clean the surface well with 50/50 mixture of water and acetone to clean any dust or dirt off the surface and in the pores. Allow to dry completely, tack cloth and begin application.

Existing Previously Sealed Stone Surfaces

On all previously sealed marble, travertine, limestone, or onyx remove the existing sealer prior to application of Stone Armor. There are a several simple, effective methods for removing existing sealers.

1. If conditions allow, using boiling hot water or steam to remove existing sealers can be an effective method of cleaning.
2. Alternate method - Mix 20% vinegar to 80% water and saturate the surface for approximately 10 minutes. Wipe clean and then neutralize with 50% baking soda and water solution. Then wipe down with 50/50 mixture of acetone and water and allow to dry completely.

WARNING: On exterior surfaces, where exposed to UV, coating will yellow slightly over time.

APPLICATION INSTRUCTIONS

Test Area

Due to the wide variety of substrates and the various environments, always test TruNano™ Stone Armor in an inconspicuous location to ensure adhesion and determine that the desired look is achieved. There will be an enhancement or change in appearance from the natural surface.

NOTE: TruNano™ Stone Armor™ is available in Satin and Gloss finish. Prior to application be sure you are using the correct product for the desired finish.

Application

Once surface has been properly prepared mask off any adjacent surfaces to keep them free of drips or accidental coating. Wipe all surfaces, prior to being coated, with a tack cloth to remove any small pieces of dust or contaminants. The application area must be free of dust and other contaminants that may settle into the finish during application and become part of the surface. Using a tack cloth just prior to applying the coating will ensure no contamination and a more aesthetically pleasing look to the finish coating.

NOTE: Stone Armor is a 2 component product.

Open TruNano™ Stone Armor. Manually stir contents thoroughly to suspend the nano particles that have settled to the bottom. In a separate, clean container large enough to accommodate equal parts Stone Armor and Quick Cure, mix 1 part Stone Armor and

APPLICATION INSTRUCTIONS - Continued

1 part Quick Cure and manually stir thoroughly. Make certain to re-stir every 15-20 minutes to ensure proper performance. Do not use a power mixer when mixing. All mixing should be done by hand.

Roller Application: This application method will provide the best aesthetic finished appearance of the product and is the recommended method of application.

Using an ultra smooth high density foam roller (available at most major home improvement stores), pour the 1:1 mixture of Stone Armor and Quick Cure into a roller pan and completely saturate the roller with the mixture. Apply a liberal coat in a cross-pattern; left to right, then up and down as quickly as possible, making sure there is always plenty of material in the roller so no spots are missed. Desired wet film thickness (WFT) is approximately 4.0 mils. Observe the surface right away to make certain there are no lines or roller marks. If lines or marks are visible, quickly touch up and avoid any further contact to the surface as the working time is very short. Over-working the coating will ruin the finish. Over the next 30 minutes, the coating will level further and become more smooth.

For limestone or sandstone, apply one coat in each direction and let dry 24 hours, then lightly sand with 400 grit sandpaper to abrade the surface so the second coat can bond. Clean the surface and re-apply following the Application Instructions.

In about 1 hour, the surface will be dry to the touch. Observe to make certain the desired finish has been achieved. Avoid liquids and heavy use for a full 7 days to allow for the molecular curing to complete its process. The surface is ready for use on Day 8.

If defects are visible, wait 24 hours and sand the surface to remove the defects. It is not necessary to completely sand off the TruNano™ Stone Armor™, only sand down the imperfections until they are no longer visible. The remaining surface can be lightly sanded to 400 grit if recoating the entire surface is desired. TruNano™ Stone Armor™ may also be blended in by an experienced finisher, similar to paint repair on a car. Wait the full cure time of 7 days after making repairs! Avoid liquids and heavy use!

NOTE: Once Stone Armor is applied, do not attempt to adjust the finish by sanding to create a more matte finish, as this process will open the surface grain causing failure of the coating. Dust knobs or sharp peaks can be lightly buffed off with a soft wool polishing pad and polishing compound. Be very careful not to penetrate the surface. If the surface is accidentally abraded through the coating, re-sand to 400 grit and re-apply Stone Armor using Application Instructions above.

Spray Application: This application method requires more knowledge and skill in the application. Make certain to re-stir TruNano™ Stone Armor™ every 15-20 minutes to ensure proper performance. Stir slowly to avoid creating air bubbles, which can affect the performance of the finish. If air bubbles are present, the spray gun will spray the air bubbles through the tip and onto the surface. Do not use a power mixer when mixing, hand mixing is the only method allowed. When surface preparation is complete and surface is dry and free of dust, begin application using a high volume, low pressure (HVLP) spray gun with a 1.4 size tip and the pressure set at approximately 25 psi. On a separate piece of cardboard first spray a test pattern to achieve a 6" to 8" elongated pattern approximately 1 1/2" wide in the middle.