
FREQUENTLY ASKED QUESTIONS

What is Formula 131?

Formula 131 is a water-based breathable formula that provides a thin surface layer that yields extraordinary protection to natural stone. It is the first and only product available that protects natural stone against acid etching caused by common household items including; lemon juice, vinegar, coffee, soy oil and Formula 409, ketchup, mustard, cooking oils, and more.

What protection does Formula 131 provide?

- An “invisible” seal that does not significantly alter the stone’s natural color, shading or appearance
- Anti- etching (chemical resistance)
- Stain resistance
- Water resistance
- Food Safe
- Breathable to allow moisture to escape through the sealer.
- High heat resistance-unaffected by hot pans from stove top or oven
- Easily repairable in-home
- Environmentally safe (no harmful emissions or VOC’s)
- Anti- graffiti properties
- Acid rain protection (for external applications)

Has Formula 131 been independently tested?

Yes, by the Tile Council of North America (TCNA) and our in house testing. See Chart I & II for complete summary of independent testing.

Is Formula 131 Patented?

US Patent was issued on January 14, 2020. International Patents have been filed in the EU, India and Brazil.

What does Formula 131 protect against?

Formula 131 protects against acidic substances that could spill and in turn etch or stain the surface of your marble, such as common household items including; lemon juice, vinegar, coffee, soy oil and Formula 409, ketchup, mustard, cooking oils, and more.

This coating prevents any of these products from penetrating your stone for at least 24 hours and in turn protects your investment in your or your customers’ home.

In the event of a spill, how long will Formula 131 protect natural stone against etching?

All spills on your natural stone surface should be cleaned up as soon as observed. Formula 131 has been tested for up to 24 hours using a wide variety of household stain and etching agents such as coffee, mustard, ketchup, red wine, soy oil and Formula 409, with no effect on the surface finish.

See Chart I and Chart II for details. *The 24-hour acid test and the CTIOA-T72 stain test protocols have been performed and corroborated by the TCNA (Tile Council of North America) in an independent set of tests.*

Is Formula 131 Food Safe/ environmentally friendly?

Yes. It meets the requirements of FDA 21 CFR 175.300, resinous and polymeric coatings test protocol, independently tested by Eurofins USA. Formula 131 has been deemed food safe by the FDA as it leaves no contaminants on potentially dropped food on the coating. It is a water-based formula, so it contains no metals or any VOCs, or oil-based harmful chemicals making it ideal for not contaminating the environment. See Chart II for more details.



Is there a California Prop 65 Warning?

No, our product does not contain any California Prop 65 materials labeled as hazardous including; PFOA and PFOS.

APPLICATION

Is Formula 131 easy to apply?

Formula 131 can either be applied at the fabricator/distributor prior to installation in the home or in the consumer's home by a trained technician. Formula 131 is delivered as a 2 part formula that requires proper mixing of the component ratios prior to the application process. See below for further application instructions

Can Formula 131 be used in an outdoor application?

Yes, when applied at the proper film thickness, Formula 131 can protect your stone outside including the effects of acid rain. (See Chart II) We recommend that application should not be done in direct sunlight and elevated temperatures above 90°F. Application should not be done when rain is forecast during the next 24 hours

Can Formula 131 be applied to vertical surfaces such as in full height back splashes?

Yes, vertical application is the same as on countertops. See application instructions for details.

How much square footage can one gallon of Formula 131 cover?

One gallon of Formula 131 will cover approximately 250 square feet.

What sizes/quantities does Formula 131 come in?

Formula 131 comes in three different sizes as of now: in a quart, one gallon, or five-gallon kit options.

Does Formula 131 produce a strong odor?

No, Formula 131 is a water-based coating leaving very little to no odor while applying it to your marble.

Does the surface of the natural stone need to be prepared before application? Does the surface need to be cleaned?

The surface should be clean of any stone dust. Thoroughly wipe the stone surface with a high evaporation rate solvent such as ethanol, isopropyl alcohol or acetone. NOTE: Formula 131 will not hide any existing surface defects that are already present in the stone.

Application method?

The best manual finish results are achieved by applying Formula 131 using a short nap (1/4") woven roller with minimal wetting, followed by back-rolling the surface using a dry high-density foam roller to remove air bubbles arising from the stone surface. A second, immediate wet-on-wet application and back rolling is recommended with very little additional sealer just to insure complete and uniform coverage.

Can you use any type of sealer before or after applying Formula 131 to your marble?

It is not recommended to apply Formula 131 on your marble after it has been sealed with a conventional sealer. After applying Formula 131 and letting it cure fully you can use any type of water-based sealer such as "Tenax Skudo" water-based sealer. A final coat of sealing will makes your marble easier to wipe off spills or stains with little to no effort.



What is the temperature range of application for Formula 131?

The ideal temperature range of application should be applied to surfaces between 50-86F (10-30C)

What is the cure time for Formula 131? How long, after applying Formula131 is it safe to touch the surface of the marble?

Under normal temperature and humidity conditions, Formula 131 dries to the touch in 1 hour. In open-air, a minimum 12-hour wait is recommended prior to exposure to stain agents/rain, etc. High humidity and/or cool temperatures will slow the time to full cure. Cure time can be accelerated with the appropriate application of heat, by driving the surface temperature to at least 50°C or 122°F. NOTE: Do not apply added heat for at least 10 minutes immediately after application to allow sealer to “wet-out” properly.

Can the marble be any or all of the following - dry, damp, polished, honed, high hone? Is it possible to apply Formula 131 in wet areas such as internal showers?

Formula 131 is designed for all to yield a matte, natural look of honed or tumbled stone. It can be used in wet areas such as showers, but is not recommended for submersion; i.e. spas or hot tubs. It should not be applied on wet (standing water) stone, but will work on damp surfaces, where drying time will be extended.

What will remove Formula 131 from the marble surface?

Chemical such as strong alkaline cleaners, acetone, oven and drain cleaners, and chemicals with high levels of ammonia, chlorine bleach will damage or remove the coating. In addition, coarse abrasives such as steel wool will remove the coating from the surface of your marble. Avoid spilling these things on your coated surfaces unintentionally to avoid damages to the finish.

What is the shelf life of Formula 131 after mixing the 3:1 ratio into one container?

In a sealed container the formula will be good for at least two years. Separation is normal and to be expected; simply re-stir the formula thoroughly (do not shake) until there is no buildup of any ingredients on the bottom of the container before using again.

CARE & MAINTENANCE

What can I use to regularly clean and maintain the surface of my marble after the coating has cured?

You can use daily cleaners such as Weiman’s stone cleaner, Lustro Italianao cleaner or even just soap and water to clean your marble surfaces after being treated. Make sure not to use an abrasive pad. For surface level scuffs and minor markings you can use a dry Magic Eraser pad to refresh the surface.

If F131 coating is damaged in anyway, can it be repaired? Can you repair small scuffs/cuts or spots where the formula has been removed?

Yes, unlike other coatings or sealers, Formula 131 if damaged can be repaired with no visible sign of the repair. The damaged surface area may be easily prepped and F131 can be reapplied and repaired in the field. You can use a chemical stripper or a strong alkaline cleaner such as “Tenax Booster” or “Polychem 36” to remove the coating where necessary and re-apply the formula only to the spots that were removed. Then, after the repair patch has cured, use a fine abrasive pad to smooth out the edges of the perimeter where the repair meets the original coating. Multiple applications may be necessary if you can still see the repair marks, repeat until you can no longer see them.

Does Formula 131 yellow or lose transparency due to things like sun exposure?

No, Formula 131 is very UV light resistant and will remain completely transparent to allow the natural colors of your marble to show and stay true to its nature.

Chart 1: The Tile Council of America (TCNA) following CTIOA-T72 Protocol-An Independent Testing Agency Determinations of Effectiveness of Sealers on Porous Surfaces

Tile Council of North America (TCNA) following CTIOA-T72: Determinations of Effectiveness of Sealers on Porous Surfaces					
Product Tested	Laticrete (Stonetech) Bulletproof Sealer	Custom Products/Aquamix Sealer's Choice Gold	Mapei Ultracare Penetrating Plus SB	Raw/Unsealed White Marble	Formula 131 Sealer
Test Duration	3 min	3 min	3 min	3 min	24 hours
Test Score	50	55	55	45	70
PASS / FAIL	FAIL	FAIL	FAIL	FAIL	PASS

Chart 2: Additional Testing of Formula 131
Formula 131 met or exceeded performance targets in every test

Performance Criteria	Test Method	Acceptance Targets	Formula 131 Actual Results	Test Agency
Adhesion Permanency (Resistance to Delamination)	ASTM D3359 Dry Specimen	4B Classification (<5% Delamination)	5A Classification - no delamination observed	Test Report TCNA - 293-16
	ASTM D3359 Water Saturated Specimen	4B Classification (<5% Delamination)	5A Classification - no delamination observed after water submersion and dry running	Test Report TCNA - 293-17
Superior Stain Resistance	CTIOA T-72	Score of 60 or better	Score of 70 (max) no visual effect observed	Test Report TCNA - 558-18
Superior Chemical Resistance	ASTM C650	Modified for Acid Exposure w/ Acid Magic (Hydrochloric-pH=1)	No effect after 4 hr. exposure	In-house: Questech
		Modified for Acid Exposure w/ Acid Magic (Hydrochloric-pH=1)	No effect after 24 hr. exposure	In-house: Questech
Equal/ Improved Slip Resistance New Standard in 2012	ANSI A 137.1-2012 Wet DCOF	0.42 or greater	0.43 to 0.47 average	Test Report TCNA - 757-16
Abrasion Resistance	ASTM C1027	Class III or better	Class III = Heavy residential/ light commercial	Test Report TCNA - 558-16
Appearance and Texture	ASTM D523	<10 gloss Units 85 Degrees	Pass	In-house: Questech
Acid Rain Resistance¹	ASTM D7356-13	0-2	Average of 0	Q-Lab QMV-0001

Acid Rain Resistance Criteria

Rating	Description	Skill Level
0	No Damage N/A	
1	Slight pitting damage	Trained Observer
2	Moderate pitting - no acid etch spots	Trained Observer
3	Few full or partial acid etch spots start	Trained Observer
4	Full acid etch spots start to appear (light)	Untrained Observer
5	Full acid etch spots, inc. frequency, few deeper spots	Untrained Observer
6	Inc. frequency, inc. depth, borderline paint repair	Untrained Observer
7	Frequency and depth would require repaint	All Observers
8	Start to see acid etch spots overlap previous spots	All Observers
9	Inc. frequency, depth of spots, overlap	All Observers
10	High % area damaged, spots overlap, discoloration	All Observers

FDA 21 CFR 175.300: Samples for Compliance with Food & Drug Administration Regulations
Resinous and polymeric coatings may be safely used as the food-contact surface of articles intended for use in producing, manufacturing, packing, processing, preparing, treating, packaging, transporting, or holding food, in accordance with the following prescribed conditions: (report shows specific criteria for each solvent)

Parameter	Test Result
175.300 N-Heptane Extractives (T0440) (CCN004)**	PASS
175.300 Water Extractives (T0439) (CCN004)**	PASS
175.300 8% Alcohol Extractives (T0441) (CCN004)**	PASS

** Analysis completed by Eurofins Subcontract Laboratory