ZIRCONIA™
Ending Concrete Corrosion

Fortress XD™

Ultra-wear resistant, military grade, two-part, ceramic-urethane traffic coating. This chemically bonded coating protects concrete from corrosion and abrasion.

Product Description

Fortress XD is a two-part, pigmented, moisture cured, ceramic-urethane hybrid traffic coating that is applied over CeramycGuard (CG) Ceramic Surface Treatment. It is self-priming, chemically bonding into the CG. This advanced ceramic-driven coating technology is appropriate for horizontal or vertical applications. It provides an ultra-durable, anti-skid surface that protects concrete from corrosion and physical wear.

Advantages:

- Chemically bonded with CeramycGuard/substrate – will not delaminate!
- Stops corrosion due to salt, carbonation, and weathering
- Ultra-durable traffic coating, designed to withstand heavy abrasion
- Resists hot tire pickup from heavy electric vehicles
- Highly chemical resistant
- Integral anti-skid tailored to project needs
- Pigmented, easy to clean finish
- Can be spot repaired
- UV stable, non-yellowing
- High solids (90%+)
- Low VOC, compliant with North American regulations

TYPICAL USES

- **Condominium/multi-family:** parking decks, pool decks and equipment rooms, dumpster/ trash rooms, under paver applications
- **Commercial:** parking garages, loading docks, office space, kitchens/catering spaces
- **Industrial:** manufacturing, production areas, distribution, maintenance areas
- **Airport:** hangars, de-icing decks, storage and maintenance facilities
- **Public buildings:** malls, schools, fire stations, bus stations
- **Food manufacturing:** main facilities, meat cutting, and cold storage
- **Agriculture:** grain silos, dairy (new), livestock
- **Energy:** oil and gas facilities, storage tank decks
- **Waste:** transfer stations, organic recycling, renewable recycling facilities

FORTRESS XD APPLICATION STANDARDS
200 sq. ft. per gallon @ 8 mils
Surface/material/air temp. must be 45°F - 90°F
Minimum Recoat (foot traffic) 12 – 16 hrs.
Dry to Touch at 70°F – 6 hrs.
Recoat Window: 6-24 hrs.

LIQUID PHYSICAL PROPERTIES	
Boiling Point:	133°F to 334°F
Freezing Point:	No Data Available
Flash Point:	72°F
N.V.W., (solids)	>91%
Hazardous Air Pollutants (HAP's)	0 g/L (0 pds/gal.)
VOC	<100 g/L

CURED PHYSICAL PROPERTIES	
Shore Hardness	ASTM D42240-15 75.5, 8 mil film
Coefficient of Friction:	> 0.65
Dry Film Thickness Per Coat	>8 mils (one or two layers)

Application method: 3/8" nap polyester roller cover. DO NOT USE a high-capacity cotton blend fiber roller.

Recommended application: one or two topcoats applied over Zirconia CeramycGuard™. Height (thickness) and integral non-skid are engineered to desired outcome. Non-skid materials are only added to the actual surface layer.

Note: must sand between coats if applying a second coat of Fortress XD™ outside the recoat window of approximately 24 hours, depending on environmental conditions.

Surface preparation over CeramycGuard™: Refer to the CeramycGuard™ Technical Data Sheet for instructions on preparing concrete surfaces before ceramic surface system application begins. Remove all dust, debris, loose aggregate (if applicable) and make sure the concrete surface is free of oils, paint or other contaminants that may be present. Apply Fortress XD (1 or 2 layers) over CeramycGuard™ Ceramic Surface Treatment after the initial application has cured for a minimum of 24 hours (at >55°F and >45% relative humidity).

Coverage: up to 200 sq ft at 8 mils per gallon for smooth floor. Reduced coverage may occur depending on the porosity and absorption rate of the substrate.

Mixing Instructions: A Jiffy mixing blade and variable speed drill is recommended.

Satin Finish: Combine Part A and Zirconia's Ceramic Powder (Part C) and mix for 3 minutes until fully incorporated in an appropriate size clean, dry mixing container. Then add part B and mix for 60 seconds and make sure the liquids are thoroughly mixed.

Application: Apply at 8-10 mils with a 3/8" nap woven, non-shed roller out of a roller pan. Cut in edges with a brush or mini roller. Uniform coverage ensures professional results. Apply in a W pattern and then back roll in an M pattern. After about 5 minutes, using spikes cross roll the surface in a 90-degree angle to the last direction of rolling.

The installer must check with Zirconia's customer service prior to surface application of any unspecified aggregate or non-skid elements. These are generally not necessary given the integral non-slip technology.

If outside the 24-hour recoat window, you must sand the first coat with 60 – 80 grit sandpaper, sweep/vacuum up all dust and wipe surface down prior to applying a second coat.

Allow 24 hours to come to initial "walk-on" cure. Coating will continue to harden and densify over the next 7-10 days, when it reaches "drive-on" cure. This unique system will continue to densify over an approximate 30-day period, but it is largely unnoticeable.

Finished Surface Maintenance: Keep dust and debris off surface with broom, vacuum, or method of choice. Clean on a regular basis with a mild environmentally approved surfactant.

NOTE: Only mix enough product to apply right away. Calculate approximately 300 square feet per 1.5-gallon kit. Square footage is based on depth, ceramic additives, and desired non-skid profile. Please contact Zirconia's customer service for assistance with calculations. Our standard calculation is for an 8-10 mil coating with included ceramic additives and non-skid elements.

IMPORTANT: When using Zirconia's Ceramic Powder - Do not mix product and allow to set in container, as it will begin to firm up. When using Ceramic Powder be sure to remix the mixture if it sits in a container for more than 15 minutes, use a slow speed drill and Jiffy mixing blade for 60 seconds to ensure proper suspension of Ceramic Powder.

Ambient Temperature: DO NOT APPLY when substrate temperature is above 90°F or below 50°F. DO NOT APPLY when the temperature is within 5°F of the dew point (ex. if the temperature is 76°F, the dew point must not be 71°or higher) or if the temperature will drop to the dewpoint during the 24-hour curing window.

***DESIGNED FOR PROFESSIONAL USE ONLY!** All applicators should have proper training before applying Zirconia Fortress XD™. Always use product in the manner in which it was designed to be used.

Read Material Safety Data Sheet and all product instructions before use. Test product in an inconspicuous area before placement over large areas. Avoid contact with eyes and prolonged exposure to skin.

Wear proper safety equipment to protect eyes skin from exposure. Use approved barriers and signage to block area off from any foot traffic or unintended entry for a minimum of 16 hours.

Recoat Window: Second coat must be applied within 12 to 24 hours after the first coating is applied.

This moisture-cured coating technology is sensitive to humidity, which may reduce pot life.