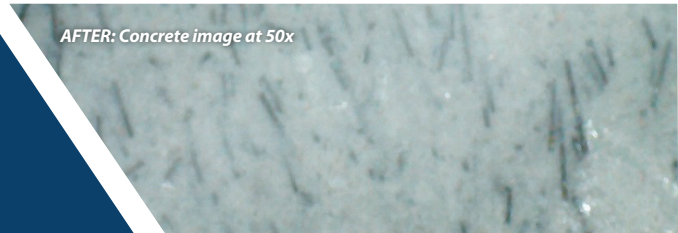


CeramycGuard™
Chemically-Bonded Inorganic Coating for Concrete
Part A Liquefier • Part B Ceramic Powder • Part C Densifier



Designed for repairing and protecting horizontal, vertical, and overhead concrete surfaces from corrosion.

- Bridges (beams, piers, abutments)
- Cinderblock walls
- Condominiums
- Dams
- Parking garages (decks, walls)
- Precast Products (slabs, pipes)
- Retaining Walls
- Sound barrier walls
- Stormwater infrastructure
- Seawalls
- Tunnels
- Wharfs
- Wastewater Treatment infrastructure

Zirconia's CeramycGuard™ is a Ceramic Surface Treatment (CST) coating which uses an inorganic nanoscale alumina-zirconia-silicate polymer to restore and protect concrete surfaces from corrosion. Once cured, this inorganic coating is permanently chemically bonded to the concrete which results in it never chalking, peeling, or delaminating from the concrete surface over time, unlike organic coatings such as epoxies or urethanes. This new technology stops attack from carbonation, salts, biological infection, weathering, and other causes of concrete corrosion. An analogue of granite, this coating forms a "skin of granite" with the concrete surface which eliminates porosity and chemically stabilizes the concrete within a ceramic composite. This inorganic coating technology is inert and will extend the life of the concrete structure significantly. CeramycGuard provides superior performance properties while maintaining ease of application.

- Immune to UV light, salts, and carbonation
- Penetrating chemical bonding
- Will not chalk, peel, or disbond
- Biologically Impervious®
- Eliminates cracks
- Water Based

Product Characteristics

Finish:	Matte
Color:	Light Gray
Weight Solids:	80% ± 2%
VOC:	<0.408 g/L; 0.003 lb/gal

Recommended Spread Rate per Coat

	Minimum	Maximum
Wet/Dry MILS (microns)*	7.0 (175)	9.0 (230)
Coverage sqft/gal	150	230
Coverage m2/gallon	14.0	21.4

*Coating does not shrink during drying
NOTE: Only a single coat is needed to achieve properties.

Drying Schedule @ 7 mils thick

	55° F	70° F (50% RH)	85° F
To Touch:	1 Hour	45 Min	30 Min
To Topcoat:			
Minimum:		24 hours	
Maximum:		N/A	
Initial Cure:		24 hours	
Full Cure:		7 days	
Foot Traffic:		6 hours	
Heavy Traffic:		48 hours	

Drying time is temperature, humidity, and film thickness dependent

Pot Life:	>1 hour @ 70°F
Shelf-life:	2 years, Store indoors at <100°F
Flash Point:	None (water based)
Clean Up:	Water

PERFORMANCE CHARACTERISTICS

Substrate: Concrete

Surface Preparation: Clean

PHYSICAL TESTING

Dry Film Thickness

7-9 MILS
(175-225 Microns)

**Chemical Bonding [ASTM D4541]
(Direct Pull-Off)**

>1000 PSI (concrete failed)

Thermal Expansion

Concrete Compatible

Freeze Thaw [ASTM D6944]

Thermal Cycling

No Checking Occurred
No Cracking Occurred
No Blistering Occurred

Split Tensile Test

Pass

Hardness, Shore D [ASTM D2240]

83.0 ± 5.0

Advanced Weathering

UVA/B 370nmλ

UVC 200nmλ

No Chalking Occurred
No Cracking Occurred
No Delamination Occurred

High Temperature Service

[ASTM D2485-13]

2000°F (No Degradation)

Fire Rating [ASTM E84 – 15b] Zero (0)

Flame Spread

Smoke Generation [ASTM E84 – 15b]

Zero (0) Smoke

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of Zirconia Inc. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication.

RECOMMENDED COATING SYSTEMS

	Film Thickness	
	MILS	(Microns)
Concrete Surfaces:		
Pore Blocker (penetrating)	0-<1 mils	0-<25 microns
CeramycGuard	7.0-9.0	(175-225)

SURFACE PREPARATION

- Surface must be clean, dry, and in sound condition.
- Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion. Refer to CeramycGuard Application Specification for detailed surface preparation information.

Do not use hydrocarbon solvents for cleaning.

Minimum recommended surface preparation:

Concrete & Masonry: SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP1-3

APPLICATION CONDITIONS

Temperature: 55°F minimum, 85°F maximum (air, surface, and material)

At least 5°F above dew point

Relative humidity: 30% minimum, 85% maximum

ORDERING INFORMATION

Packaging: 1 gallon

Weight: 17 ± 0.2 lb/gallon

SAFETY PRECAUTIONS

Refer to the SDS sheets before use.

ENVIRONMENTAL FACTORS

CO₂ generated from manufacture: 8.33 pounds CO₂ per gallon, 200 sq ft gallon
2.2 kg CO₂ per liter, 4.9 square meters per liter

Warranty

Zirconia warrants (i) its title to the product, (ii) that the quality of the product conforms to Zirconia's standards at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT ZIRCONIA MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY ZIRCONIA. Any claim under this warranty must be made by Buyer to Zirconia in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify Zirconia of such non-conformance as required herein shall bar Buyer from recovery under this warranty. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Zirconia. Zirconia is not responsible for any consequential damages.