



QuartzSealTM

Penetrating Chemically Bonded Inorganic Sealant

RECOMMENDED USES

QuartzSeal is used as a top coating with CeramycShieldTM to protect assets:

- Agriculture & Dairy
- Animal Husbandry
- Bridges (decks, beams, piers/abutments)
- Precast Products (slabs, pipes)
- Cinderblock Walls
- Commercial & Industrial floors
- Concrete Roadways, Runways, Pathways
- Dams
- Food Storage & Processing
- Greenhouses (walls and floors)
- Kill Houses
- Loading Docks
- Parking garages (deck and walls)
- Retaining and Sound Barrier Walls
- Seawalls & Wharfs
- Storm Drains
- Tanks
- Tunnels
- Wastewater Treatment
- Water Treatment

Zirconia's QuartzSealTM creates a Near-Zero Porosity over our CeramycGuardTM that further inhibits water/waterborne chemical pollutants and other corrosive elements from entering the concrete while still remaining breathable. QuartzSealTM also provides improved Stain Resistance by preventing the accumulation of dust, dirt, and stains. QuartzSealTM chemically reacts to concrete and bonds. This reaction creates a stronger bond to the substrate and will not delaminate like other sealants using adhesives rather than reactionary bonding processes have superior durability and easy to apply.

- LEED 4.2 complaint material
- Breathable
- Will Not Chalk, Peel, or Delaminate
- UV Immune
- Improved Chemical Resistance
- Improved Stain Resistance

Product Characteristics

Finish:	Matte
Color:	Clear
Weight Solids:	10% ± 2%
VOC:	0.0 g/L; 0.0 lb/gal

Drying Schedule @ 7 mils thick

@ 50% RH	55° F	70° F (50% RH)	85° F
To Touch:	1 Hour	30 Min	10 Min
To Topcoat:	N/A		
Initial Cure:	24 hours		
Full Cure:	7 days		
Foot Traffic:	8 hours		
Heavy Traffic:	48 hours		

Drying time is temperature, humidity, and film thickness dependent

Pot Life:	Indefinite
Shelf-life:	Indefinite, Store indoors above 32°F
Flash Point:	None (water based)
Clean Up:	Water

Recommended Spread Rate per Coat

	<u>Minimum</u>	<u>Maximum</u>
Wet/Dry Mils (microns)	1.0 (25)	2.0 (50)
Coverage sqft/gal	400	800

NOTE: Only a single coat is needed to achieve properties.

PERFORMANCE CHARACTERISTICS

Substrate: Concrete

Surface Preparation: Clean

PHYSICAL TESTING

Dry Film Thickness

6-8 Mils

(150-200 Microns)

Adhesion (Direct Pull-Off)
[ASTM D4541]

>1000 PSI (concrete failed)

Thermal Expansion

Concrete Compatible

Thermal Cycling [ASTM D6944]

No Chalking Occurred

No Cracking Occurred

No Blistering Occurred

MOHs Hardness

>9

Taber Abrasion [ASTM D4060]

CS-10 @1,000g Load, per 1000 Cycles

17 Wear Index (Excellent Hardness)

Hardness, Shore D [ASTM D2240]

90.0 ± 5.0

UVA/B 370nmλ

No Chalking Occurred

No Cracking Occurred

No Delamination Occurred

Water Penetration [ASTM E514]

None

High Temperature Service

500°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 Walls:		
1 ct. CeramycGuard	6.0-8.0	(150-200)
Concrete Floors:		
1 ct. CeramycGuard	6.0-8.0	(150-200)
1 ct. QuartzSeal	1.0-2.0	(50-100)
Anti-Graffiti:		
1 ct. CeramycGuard	7.0-9.0	(175-225)
1 ct. Vitrium	1.0-2.0	(50-100)

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 pails

Weight: 8.3 ± 0.2 lb/gallon

SAFETY PRECAUTIONS

Refer to the SDS sheets before use.

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.