



Coated Concrete



## CeramycGuard HeatShield™ Coating

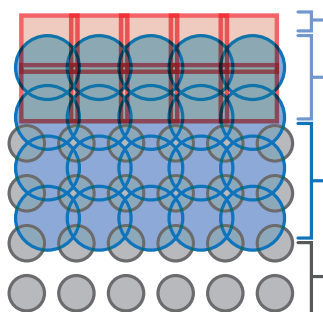
CG HeatShield protects concrete from extreme heat and chemical attack on rocket launch pads. This chemically bonded coating system is also an ideal solution for protection of concrete in high-heat industrial settings.

### Product Description

CG HeatShield coating is a ceramic-organic hybrid coating that chemically bonds with our CeramycGuard, forming a permanent protective ceramic layer over concrete. This technology creates a barrier that is high-heat and blast force tolerant. It also has extreme chemical resistance.

This coating is similar to "green" ceramic coatings used for non-PFOA (non-fluoride) non-stick pans.

Originally designed to protect rocket launch pads, this coating system makes it possible to create a durable concrete coating in high heat operations up to 1,000°F (538 °C) constant temperature.



**CG Heatshield™**  
**CeramycGuard™**  
Ceramic Surface Layer

**Composite**  
CeramycGuard + Concrete Layer  
CeramycGuard chemically bonds to the concrete surface creating a coating that will not peel, flake, chalk or deteriorate  
Concrete Surface

### Product Features

- Extreme heat shielding
- Infrared reflective
- Blast force resistant
- Chemical resistant
- Chemically bonded, permanent (will not peel or delaminate)
- Highly resistant to UV
- Immune to humidity
- Non-breathable
- Harder, denser, and more durable than concrete
- High temperature service (1000°F no degradation)
- Stabilizes concrete (chemically and physically)

## CeramyGuard HeatShield<sup>™</sup>

FEATURE	ADVANTAGE	BENEFIT
<b>Inorganic Ceramic Coating</b>	Extreme heat and chemical tolerance	Operation temperatures up to 1,000°F
<b>Infrared Reflective</b>	Disallows thermal gain in concrete from radiant sources of heat	Protects concrete assets from heating-up, and subsequent damage from thermal degradation and expansion.
<b>Chemical Resistant</b>	Strong acid, solvent resistant	Similar to a non-stick pan, will resist degradation from acids and solvents
<b>Chemically Bonded</b>	Will not delaminate, chalk, or peel	Permanent coating system has a long-term lifespan, and will extend the life of the concrete structure
<b>Non-porous, Non-Breathable</b>	Disallows ingress of corrosive chemicals and water vapor	Prevents corrosion of concrete and structural rebar
<b>UV Tolerant</b>	Resists degradation from UV exposure	Will have extended lifespan, even outdoors
<b>Low toxicity</b>	100% solids technology	Improves worker safety, decreases toxicity to environment
<b>Coating Rebonds to itself</b>	Easy to recoat after damage, just sand are recoat	Renovations are easy and low cost. 24 Hour TAT.
<b>Chemically bonded non-slip grit</b>	Reduces slip-fall hazard	Safer walking surface for employees in industrial settings

### About Zirconia

Zirconia is a green-tech company that manufactures Ceramic Surface Treatment (CST) coatings for restoring and preserving the inorganic surfaces of concrete infrastructure. CSTs are a new type of inorganic, nano-ceramic coating that leverages the quantum effects of nanoscale ceramic particles to chemically bond and form ultra-durable ceramic composites with the surface of concrete. This new inorganic coating technology offers multiple benefits, including repairing corrosion damage and preventing corrosion from occurring on concrete surfaces permanently.

Zirconia's technology is a revival of Roman Cement as a nano-ceramic coating, with the same lifespan as Roman Cement mortars that built the Colosseum and Pantheon, still standing after 2,000 years.

