



## ComposiCoat XD™ Floor Finish

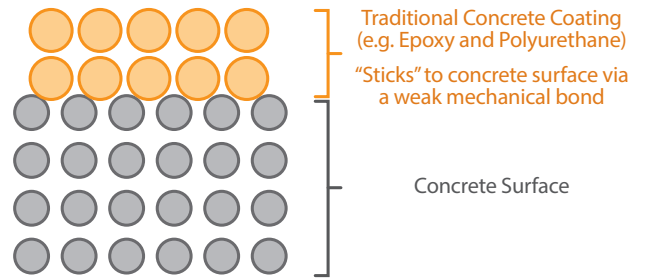
A three-layer TruComposite® system that chemically bonds to concrete for exceptional chemical, abrasion and microbial resistant protection.\*



### The Problem

Concrete is a porous and chemically unstable surface, that is highly reactive with multiple chemicals and unstable due to the constant exchange with water and moisture. Traditional coatings like epoxies, urethanes and paints attempt to control this instability by a non-permanent barrier layer on top of the concrete. These coatings are traditionally organic plastics that are unable to chemically react with the concrete and can only stick or grab onto the surface texture to stay in place. These coatings quickly degrade and peel off, due to their weakness when

exposed to UV sunlight, and inability to breathe out trapped water vapor. Trapped moisture in the concrete allows for carbonation, and biological growth, leading to corrosion, cracking, spalling, rebar rusting, and eventual concrete failure.



### The Solution

The solution is to use a system that combines the best of the inorganic properties of concrete and geopolymers with the best characteristics of organic or polymer coatings. Zirconia's CeramycGuard™ is an inorganic ceramic base coat that chemically bonds to the concrete, giving a permanent crosslinked base for the system. This base coat is impervious to vapor pressure and can not delaminate, peel or come off the concrete from moisture movement. It is also harder than the concrete itself giving durable, long-lasting protection. The top layers over the CeramycGuard™ add the benefits of organic/plastic coatings, having great resistance to chemicals and abrasive wear. Since they are chemically crosslinked to the inorganic ceramic base coat they can not fail from high moisture levels and will not peel as they are not individual layers, but a composite of organic and inorganic chemistries.

### The System

**Part 1: CeramycGuard™**, the base layer, is an inorganic ceramic polymer which chemically cross-links into the concrete surface forming an *ultra-durable ceramic composite*. **Part 2: CrossLinker™** is a hybrid compatibilizer-primer and vapor barrier which cross-links the base ceramic composite to **Part 3: ComposiCoat XD™**. The top coat is chemical and abrasion resistant, easy to clean with biologically impervious properties. Once cured, all three layers are chemically bonded permanently into the ComposiCoat XD™ Floor Finish system. This composite flooring system has all the durability benefits of advanced ceramics and plastics technology; taking advantage of the best characteristics of both organic and inorganic coatings.

With the ComposiCoat XD™ Floor Finish system, the chemically unstable concrete surface is replaced by an ultra-stable ceramic-urethane composite, protecting it from chemical and physical erosion. This unique flooring system is also Biologically Impervious®, meaning it is designed to eliminate microbial habitat and continuously prevents microbial invasion and growth.

**Characteristics / Advantages:**

- Easy to clean, non-yellowing, UV stable
- Biologically impervious, preventing invasion and degradation by microbes
- Superior abrasion resistance and durability
- Chemically resistant to many types of acids, fuels, ammonia hydroxide and many others (see ComposiCoat XD™ product data sheet for a full listing)
- High solids, no odor, safe for indoor and outdoor use
- VOC compliant Industrial Maintenance Coatings of North America
- Tru-Composite® system that is resistant to subsurface concrete moisture

**Uses:**

- Farming, agriculture, dairy, livestock
- Food production, manufacturing facilities and storage rooms
- Commercial flooring such as loading docks, distribution centers, parking ramps
- Surgery/sterile rooms, waiting rooms, locker areas, exercise facilities, laboratories

**How it Works:**

