

SyntheticXG

WATER-BORNE EPOXY RESIN

for Demanding Concrete, Cement & Other Installations

The XG system is based on advanced chemical compositions to achieve exceptional interfacial adhesion on gypsum containing substrates. This product is available with or without dyes. The XG system has been developed for [concrete](#), [engineered cement and gypsum-based installations](#) where moisture, high wear patterns and/or chemical exposure are present.

Inherent epoxy problems of progressive interfacial adhesion on recently installed and/or damp substrates are eliminated and the XG system is unique in its price class in achieving simultaneous hardness, tensile strength and chemical resistance. Tile and carpet adhesives bind exceedingly well to XG. Available in GLOSS and LOW GLOSS.

Exceptional Moisture Protection

SyntheticXG is a two-component waterborne system designed to penetrate concrete and gypsum slabs (including portland based terrazzo) to reduce concrete floor dampness. The special resins allow excellent penetration into freshly poured and aged concrete/gypsum substrates with excessive water vapor emission, alkalinity migration and 100% relative humidity transfer which fail to meet flooring manufactures moisture tolerances. The product may also be used as a moisture tolerant clear floor finish on substrate where traditional coating system may be damaged by long term moisture exposure.

Exceptional Interfacial Adhesion. Traditional direct-epoxy systems are susceptible to adhesion problems on concrete because of water-mediated alkali at the interfacial layer. The XG system uses its exceptional bonding and water-resistant properties to provide outstanding cement adhesion of the epoxy interface. The result is interfacial flexibility and improved long-term stability of an extremely resistant epoxy coating at affordable cost and ease of application.

ASTM E96 Water Vapor Transmission Rate - WRT

| | SyntheticXG | Control |
|--------------------------|-------------|---------|
| Pounds/1000 ft / 24 hrs. | 2.0 | 42.4 |
| Grams/h m | 0.4 | 8.6 |

ASTM E96 Water Vapor Permeance - WVP

| | SyntheticXG | Control |
|-------------------|-------------|---------|
| Grams/Pa s m x 10 | 8.1 | 172.8 |
| Nanograms/ Pa s m | 81.1 | 1728.2 |

ASTM D1308 Alkali Resistance-30 Day Exposure

Alkali of 14pH - 100% Resistant to exposure
35% Potassium Hydroxide - 100% Resistant to exposure

EPA Method 24 Volatile Organic Compound (VOC)

Mixed Product VOC: less than 99 g/liter

Indoor Air Quality Contributions

New Construction & Major Renovations, Ver 2.2
EQ Credit 4.2: Low-Emitting Materials: Coatings
LEED Schools for New Construction and Major Ren.
EQ Credit 4: Low-Emitting Materials
Mixed Product VOC: less than 99 g/liter
LEED

APPLY IN WELL VENTILATED AREAS

Tensile Strength typically 6,500 psi

Elongation typically 10% at cure

Tabor Abrader 1000 g, CS17, 1000 cycles typically 38 mg loss

Solids Content 35%

V.O.C. Content 247 g/l catalyzed

Dry Rate walkable: 8 hrs
light service:12-24 hrs
standard service:48 hr min
full cure & protection:3-4 days

Coverage ~350 sq.ft./gallon recommended

DFT ~1.8 mil (3.2 mil if 2 coats)

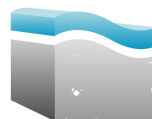
Chemical & Solvent Resistance

30 minute spot tests

| | |
|----------------------------------|-----------|
| xylene | no effect |
| MEK | no effect |
| butoxy ethanol; 409 | no effect |
| isopropyl alcohol | no effect |
| 1N. NaOH | no effect |
| 30% ammonia | no effect |
| clorox | no effect |
| 1N. HCl temp whitening, recovers | no effect |
| glacial acetic acid | no effect |
| engine oil | no effect |
| brake fluid | no effect |

Limited Warranty

Synthetics International warrants its products for the lifetime of the originally installed flooring system or fifteen (15) years for concrete moisture vapor emission, alkalinity and relative humidity reduction as shown in printed literature. Installation instructions must be strictly followed. If product fails due to moisture vapor emission, alkalinity and relative humidity within said period, Synthetics International shall provide the labor and materials to replace the failed and/or defective Synthetics International product and/or damaged flooring system with the same or a comparable product(s) at manufactures discretion. The sole and exclusive remedy due to a breach of this warranty shall be expressly limited to the repair of the defective areas due to the failure of Synthetics International products, and shall expressly exclude consequential damages including, but not limited to damages to the structure or to the contents of the structure. See official warranty certificate for all details.



Synthetics International

Concrete Moisture Specialists

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