QUARTZ EP
Quartz Epoxy Flooring System

DESCRIPTION

QUARTZ EP is an attractive, seamless floor that is chemical-and-abrasion resistant. Utilizing a clear, 100% solids epoxy with a blend of colored quartz sands, QUARTZ EP provides positive footing or a smooth, high-gloss appearance.

PRIMARY APPLICATIONS

- Manufacturing plants
- Food processing areas
- Locker rooms/showers
- Kitchens
- Schools
- Rest rooms
- Chemical processing
- Hospitals
- Walkways
- Jails
- Restaurants
- Lobbies

FEATURES/BENEFITS

- Decorative, aesthetic appearance
- Seamless
- Alternative to trowel-applied systems
- Easy to maintain
- Low odor
- Long-term service life
- High abrasion resistance, chemical resistance
- Eleven standard colors

TECHNICAL INFORMATION

Material properties @ 75 °F (24 °C)

Mix Ratio (by Volume) ................................................ 2:1
VOC Content .......................................................... <50 g/L
Pot Life, 3 gal (11.4 L)/min ....................... 15 to 25
Gel Time, 200 g/min .................................. 35 to 45
Tack Free, hrs ................................................. 4 to 5
Compressive Strength, ASTM D 695
Neat resin, @ 24 hrs .................. 7,500 psi (51.7 MPa)
@ 7 days .................................. 9,800 psi (67.6 MPa)

Hardness, Shore D, ASTM D 2240 .............. 85 to 90
Abrasional Resistance, ASTM D 4060 ...... 32 mg loss
Tensile Elongation, ASTM D 638 % ........ 15 to 30
Monolithic Surfacing, ASTM C 722 .......... Passes
Bond Strength, ASTM D 4541 ... Greater than Concrete
Water Absorption, ASTM D 570 @ 24 hrs ........ <0.5%
Flammability, ASTM D 635 Self Extinguishing ...... 0.75 Max

PACKAGING

HIGH PERFORMANCE EPOXY is packaged in 1 gal (3.8 L) and 3 gal (11.4 L) units.
Sands are packaged in 50 lb (22.7 kg) bags.

QUARTZ EP sands are available in eleven standard colors which can be used alone or combined to create unique blends. Standard Colors: Black, Blue, Cayman Green, Plum, Peach, Red, Buff, Tan, Gray, Smoke, and White. Others available upon request: Blue Gray, Camel, Chocolate, Light Beige, Light Rose, Navy, Teak, Teal and Yellow.

SHELF LIFE

2 Years in original, unopened containers.

SPECIFICATIONS/COMPLIANCES

USDA compliant
**Coverage**

**HIGH PERFORMANCE EPOXY Coverage:**

<table>
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<tr>
<th>Unit</th>
<th>Thickness</th>
<th>Coverage</th>
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<td>1 gal (3.78 L)</td>
<td>10 mils (250 µm)</td>
<td>160 ft² (15 m²)</td>
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**QUARTZ SAND Coverage @ 1000 ft² (93 m²):**
- Single Broadcast: 0.45 lb ft² (2.2 kg/m²)
- Double Broadcast: 0.8 lb ft² (3.9 kg/m²)

*Application equipment, method, and temperature will have a significant effect on coverage rates.

**Directions for Use**

**SURFACE PREPARATION:** This epoxy floor coating system is designed for application on concrete substrates. Concrete surfaces must be structurally sound, free of loose or deteriorated concrete and free of dust, dirt, paint, efflorescence, oil and other contaminants. Mechanically abrade the surface to achieve a surface profile equal to CSP 2-4 in accordance with ICRI Guideline 310.2. Properly clean profiled area. The pH of the surface should be checked according to ASTM D 4262. Following surface preparation, the cleaned surface should have a minimum surface-tensile strength of 200 psi (1.4 MPa) when tested with an Elcometer or similar pull tester (ASTM D 4541). Before applying the coating, use the “Visqueen” test (ASTM D 4263) or “Calcium Chloride Test” (ASTM F 1869) to evaluate the moisture level in the concrete. Do not proceed if a moisture vapor drive condition exists. Moisture vapor emission rate may vary over time depending upon environmental conditions. All steel surfaces should be blasted in accordance with SSPC-SP10 or NACE #2 to a “near white” finish using clean dry blasting media.

**MIXING:** Pre-mix Part A and Part B, then combine 2 parts by volume of Part A with one part by volume of Part B and mix thoroughly using a low-speed drill motor and a “jiffy” type mixer. Mix only the amount of material that can be applied during the post life. Do not aerate the mix.

**APPLICATION:** Spread the mixed epoxy with a notched squeegee while wearing spiked shoes. Start from one end of the floor and work backwards and sideways trying to keep a wet-to-wet edge. The coating should then be rolled in one direction using a 3/8 in (9.5 mm) nap, shed-resistant roller. Make sure that the material is applied as quickly as possible without leaving puddles. Discard container after use.

**QUARTZ BROACast:** While wearing spiked shoes, broadcast the QUARTZ EP sand by allowing it to fall as vertically as possible from a chest-high level. Broadcast uniformly onto the wet substrate until the substrate is no longer visible and the quartz appears and remains dry in appearance. Allow a minimum of 6 hours at 73 °F (23 °C) drying time. Sweep or vacuum excess quartz aggregate from the surface and as a precaution, cover shoes with plastic to prevent marking or heel marks on the new surface. If areas appear to be uneven or are not level, sanding may be required. The surface is now ready for the topcoat.

**TOPCOAT:** Apply clear HIGH PERFORMANCE EPOXY coat as directed. For greater abrasion and chemical resistance a final coat of URETHANE or URETHANE WATER BASED may be applied.

**Clean-Up**

Clean tools and application equipment with SOLV-KLEEN, methyl ethyl ketone or acetone immediately after use. Clean spills or drips with solvent while still wet. Dried epoxy will require mechanical abrasion for removal.

**Precautions/Limitations**

- Store at temperatures between 50 to 90 °F (10 to 32 °C).
- Do not aerate during mixing.
- Do not mix or apply unless surface, air and material temperatures are 50 °F (10 °C) and rising.
- Do not apply if surface temperature is within 5 °F (-15 °C) of the dew point in the work area.
- Cure new concrete 28 days before application.
- Do not apply to slabs on grade unless a heavy uninterrupted vapor barrier has been installed under the slab.
- Do not apply if the floor is subject to moisture vapor drive or hydrostatic pressure.
- HIGH PERFORMANCE EPOXY will yellow upon prolonged exposure to sunlight or high-intensity artificial lights.
- For applications requiring color stability, URETHANE or URETHANE WATER BASED should be used as a topcoat.
- Although epoxy coatings are chemically resistant, surface staining of the coating may occur after contact with some chemicals. Apply a urethane top coat for additional protection against chemicals.
- For professional use only.
- In all cases, consult the Safety Data Sheet before use.

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