DURAL 335

Ultra-Low Viscosity, Penetrating Epoxy Crack Healer-Sealer

EUCLID CHEMICAL

Description

DURAL 335 is a solvent-free, two-component, moisture insensitive, ultra-low viscosity epoxy penetrating healer-sealer for damp and dry cracks.

Primary Applications

- Bridge decks
- Roadways
- Airport runways
- Parking garage decks and ramps

Features/Benefits

- Penetrating epoxy crack healer-sealer
- Alternative to hazardous methylmethacrylates
- Solvent free, no odor
- Ultra-low viscosity
- High strength
- Moisture insensitive
- Protects treated surface from salts, chemicals, and water absorption

Technical Information

Material Properties @ 75°F (24°C), 50% RH

Mixing Ratio (A : B) by volume.....4:1

Mixed Viscosity cp.....80 to 100

Gel Time (100 gms), mins.....40 to 50

Pot life (1.25 gal unit), mins.....20 to 25

Tensile Strength ASTM D 638, psi (MPa)..... 7,000 to 8,000 (48.3 to 55.2)

Tensile Modulus psi (MPa).....300,000 (2,068)

Tensile Elongation ASTM D 638, %.....1 to 5

Compressive Strength ASTM C 109, psi (MPa)
mortar (3 parts sand).....8,000 to 9,000 (55.2 to 62.1)

Slant Shear Bond Strength ASTM C 882, psi (MPa).....1,800 to 2,000 (12.4 to 13.8)

Flexural Strength ASTM D 790, psi (MPa)..... .9,000 to 10,500 (62.1 to 72.4)

Packaging

DURAL 335 is available in 1.25 gal 2 pack/case (4.73 L) and 5 gal (19.9 L) units.

Shelf Life

1 year in original, unopened package.

Coverage

Slab sealing: 100 to 200 ft²/gal (2.45 to 4.91 m²/L) for typical concrete surfaces. **Crack grouting:** Coverage depends on extent and depth of cracking.

Specifications/Compliances

Canadian MTQ

Directions for Use

Surface Preparation: Surface must be structurally sound, clean, and free of standing water, laitance, dust, dirt, oil, coatings, form release agents and other contaminants. Remove contamination by sandblasting or shotblasting. Remove defective concrete, honeycomb, cavities, joint cracks and voids by routing to sound material. Rebuild areas with suitable patching materials. Smooth, precast and formed concrete surfaces must be cleaned, roughened and made absorptive by sandblasting or shotblasting. Blow debris and residue out of cracks and from the surface with a moisture-free and oil-free air jet. Mask expansion joint sealants to prevent adhesion of DURAL 335 to the joint surface. Surfaces and cracks must be completely dry before DURAL 335 application to obtain maximum penetration.

Mixing: Premix Part A and Part B separately. Combine 4 parts by volume of Part A (Base) to 1 part by volume of Part B (Hardener) in a clean container, and mix thoroughly with a slow speed motor and "Jiffy" mixer. Scrape the bottom and side of the mixing container at least once. Do not aerate mixture.

Application: Sealing slabs: Pour the mixed DURAL 335 onto the prepared surface in a wave form and distribute evenly with a short nap roller or squeegee to fill voids, cracks and porous areas. Before the resin becomes tacky, use a squeegee on a smooth surface and a broom on textured surfaces to remove any excess resin that has not penetrated the surface. To improve skid resistance of the surface or where subsequent topping or coating application is desired, broadcast 0.2 to 0.8 lbs/yd^2 (0.11 to 0.43 kg/m^2) of silica sand not earlier than 20 minutes (at 75°F [24°C]) after application of DURAL 335 but before the DURAL 335 begins to become tack free. Ensure that the coating or toppings are applied within the recoat window of the application conditions.

Grouting cracks: Gravity feed: Pour neat mixed DURAL 335 into vee-notched cracks until completely filled. **Pressure injection:** Set appropriate injection ports depending on the system used. Seal around port and surface of crack using Dural 452 Gel or Dural Fast Set Gel. Inject neat resin using automated (2 part injection unit) or manual methods (caulking gun). Maintain slow steady pressure until the crack is filled with the injection resin.

Clean-Up

Clean tools and equipment immediately following use with methyl ethyl ketone or acetone. Clean spills or drips while still wet with the same solvent. Dried DURAL 335 will require mechanical abrasion for removal.

Precautions/Limitations

- Store at temperatures between 50°F to 90°F (10°C to 32°C). Do not allow DURAL 335 to freeze.
- Apply DURAL 335 when surface and ambient temperatures are between 50°F to 90°F (10°C to 32°C).
- In some cases, on highly porous surfaces, a second coat may be required.
- Multiple applications of DURAL 335 at 75°F (24°C) must be within 24 hours of the preceding application.
- Excess DURAL 335 left on the concrete surface will reduce skid resistance.
- Apply a test area to confirm suitability. DURAL 335 is not intended for sealing cracks under hydrostatic pressure.
- Allow new concrete to cure 28 days before DURAL 335 application.
- In all cases, consult the Safety Data Sheet before use.