

### DURAL® 335

#### Ultra Low Viscosity, High Strength Epoxy Crack Sealer

03930  
CONCRETE REHABILITATION  
CONCRETE

TAMMS INDUSTRIES  
NOVEMBER 2003 (Replaces 4/02)

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- DESCRIPTION:** DURAL 335 is a solvent free, two component, moisture insensitive, ultra low viscosity epoxy sealer. It is specifically formulated for grouting cracks either by gravity feed or pressure injection. DURAL 335 has high strength, and the ability to penetrate into smallest cracks which enhances the protection to concrete from the damaging effects of salts, mild chemicals and water absorption.
- USES:** DURAL 335 is used to grout cracks by gravity feed or pressure injection and to seal concrete slabs. Typical applications as a sealer include bridge decks, parking ramps garages, parking decks, airport runways, roadways, etc.
- COMPOSITION AND MATERIALS:** DURAL 335 is a 100% solids, moisture insensitive epoxy resin formulation.

- MIXING INSTRUCTIONS:** Premix Part A and Part B. 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 mixing container at least once. Do not aerate mix.

- APPLICATION INSTRUCTIONS: For sealing slabs:** Pour the mixed DURAL 335 onto the prepared surface in a wave form and spread with a short nap roller or squeegee to fill voids, cracks and porous areas. A second coat to highly porous or cracked concrete, if required, should be applied within 24 hours. To provide an anti-skid surface or where subsequent topping or coating application is desired, broadcast 0.2-0.8 lbs./sq.yd. of silica sand not earlier than two hours (at 75F) after application of DURAL 335 but before 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 DURAL 335 into vee-notched cracks until completely filled.

**Pressure Injection** - Set appropriate injection ports depending on the system used. Seal area around port and surface of crack using Duralith 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. For complete details, consult Tamms Guide Specifications on "Epoxy Pressure Injection of Structural Concrete."

- COVERAGE: For slab sealing:** 100-200 sq.ft./gal for first coat for normal concrete surfaces. 150-300 sq.ft./gal for second coat where extensive cracking or porosity in concrete is present. **For crack grouting:** Coverage depends on extent and depth of cracking.

- CLEAN UP INSTRUCTIONS:** Clean tools and application equipment immediately after use with methyl ethyl ketone or xylene. Clean spills or drips while still wet with solvent. Dried DURAL 335 will require mechanical abrasion for removal.

- PACKAGING:** DURAL 335 is available in 1.25 gallon and 5 gallon units.  
**Storage:** 50 - 90°F **Do not store below 50°F.**  
**Shelf Life:** One year in original container, properly sealed. Return of improperly stored materials will not be accepted.

#### MATERIAL PROPERTIES 75°F AND 50% RH

Mix Ratio (A:B, by volume)	4:1
Mixed Viscosity, cps	80-100
Gel time (100 gms sample), mins	40-50
Pot Life (1.25 gallon unit), mins	20-25
Tensile Strength, psi ASTM D638	7000-8000
Tensile Modulus, psi	300,000
Tensile Elongation, % ASTM D638	1-5
Compressive Strength, psi ASTM D695	10,400
Compressive Modulus, psi	325,000
Compressive Strength, psi mortar ASTM C109 (3 parts sand)	8000-9000
Slant Shear, bond strength, psi, ASTM C882	1800-2000
Flexural Strength, psi ASTM D790	9000-10,500
Values presented are typical and not necessarily referenced to create specifications.	

- SURFACE PREPARATION:** Surface must be structurally sound, clean, dry, and free of laitance, dust, dirt, oil, coatings, form release agents, and other contaminants. Remove contamination by sandblasting or shotblasting. Remove defective concrete, honeycomb, cavities, joints, 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 the 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. For further information, contact Tamms Technical Service Centers.

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10. **CAUTIONS:** Apply DURAL 335 when surface and ambient temperatures are between 50-90°F. Multiple applications of DURAL 335 at 75°F must be within 24 hours of the preceding application. DURAL 335 is not intended for sealing cracks under hydrostatic pressure. Do not store DURAL 335 below 50°F. Allow new concrete to cure 28 days before DURAL 335 application.

11. **ENVIRONMENTAL AND SAFETY:**

**Industrial Use Only.**

**Component "A":** Contains epoxy resin. Vapors can cause respiratory irritation. Skin and eye irritant. Can cause sensitization after prolonged or repeated exposure. Use of safety goggles and chemical resistant gloves is recommended. Use only with adequate ventilation.

**Component "B":** Is **CORROSIVE**. Contains amines. Contact with eyes and skin may cause severe burns. Can cause sensitization after prolonged or repeated use. Use of safety goggles and chemical resistant gloves is highly recommended. Use only with adequate ventilation.

**First Aid:** In case of skin contact, wash immediately and thoroughly with soap and water. For eye contact, flush immediately with plenty of water for at least 15 minutes. Consult physician immediately. For respiratory problems, remove person to fresh air.

**Disposal:** Collect with absorbent material. Dispose of in accordance with current local, state and federal regulations.

READ MATERIAL SAFETY  
DATA SHEET BEFORE USING  
FOR INDUSTRIAL USE ONLY  
**KEEP AWAY FROM  
CHILDREN AND ANIMALS**  
EMERGENCY RESPONSE:  
1-800-424-9300 (CHEMTREC)  
1-800-862-2667 (TAMMS)

12. **TECHNICAL SERVICE:** For application procedures or surface conditions not specified above, please contact:

TAMMS INDUSTRIES, INC.  
3835 State Route 72  
Kirkland, IL 60146  
800-862-2667  
FAX: 815-522-2323  
www.tamms.com

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