

### DURALBOND® PRE-PAK KIT Multi-Purpose Construction Epoxy

03050

BASIC CONCRETE MATERIALS AND METHODS  
CONCRETE

1. **DESCRIPTION:** DURALBOND PRE-PAK KIT is an easy to use, pre-measured, multi-purpose, two part, 100% solids, moisture insensitive epoxy bonding, grouting, patching, adhesive compound.

**FEATURES AND BENEFITS**

- *Multi-purpose use*
- *Pre-measured kit*
- *High Strength*
- *High Modulus*
- *Provides Load Transfer*
- *Virtually No Odor*
- *1:1 Mix Ratio*
- *Outstanding Adhesion to Concrete*
- *Medium Viscosity*

**APPLICATIONS**

- *Bond Fresh Concrete (Plastic) to Hardened Concrete*
- *Vertical Anchor Bolt, Dowel Bar & Re-Bar Adhesive*
- *Hardened Concrete to Hardened Concrete Adhesive*
- *Mortar to Repair Concrete Defects*
- *When applied in thin film and sprinkled with aggregate a durable non-skid surface can be created*



2. **COMPLIANCE:** DURALBOND meets or exceeds the following standards:

AASHTO M235-88, Type II  
ASTM C881-90, Type I, II  
Grade 2, Class B & C  
Federal Specification  
MMM-A-001993, Type I

3. **SURFACE PREPARATION:** Concrete must be structurally sound, dry, free of grease, oils, coatings, dust, curing compounds and other contaminants. Surface laitance must be removed. The preferred method of surface preparation is abrasive blasting or shotblasting. Remove oil, grease smear and asphalt residue with trisodium phosphate or a strong detergent. For oil contaminated surfaces, use steam cleaning in conjunction with a strong emulsifying detergent. Rinse thoroughly with potable water. After cleaning, remove defective concrete, honeycombs, cavities, joint cracks voids and other defects by routing to sound material. Smooth, pre-cast and formed concrete surfaces must be cleaned, roughened and made absorptive by abrasive blasting or shotblasting. If it is not possible to sandblast or shotblast, acid etch with a 15% Hydrochloric acid solution

**MATERIAL PROPERTIES at 75°F (23.9°C)**

Color, Part A	Clear
Part B	Gray
Mixing Ratio (Parts A:B) by Volume	1:1
Viscosity (Parts A & B mixed) cps	6,000-8,000
Contact Time - Concrete, hrs.	2-3
Gel Time (100 gms sample)	35-40 min.
Pot Life (1 kit)	15-20
Tensile Strength psi, min. ASTM D638	5,000
Tensile Elongation %, ASTM D638	1-5
Compressive Strength: psi, ASTM D695	10,000
Compressive Modulus: min. psi, ASTM D695	150 000
Compressive Strength psi, (2 parts sand) ASTM C109	9,000
Flexural Strength psi, 7 days ASTM D790	7,700
Hardness Shore D ASTM D2240	90-95
Bond Strength psi, 14 days ASTM C882	2 days- 1,800 7 days 2,400

Values presented are typical and are not necessarily referenced to create specifications.

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followed by pressure washing or flushing the surface with copious amounts of water to neutralize the surface can be employed. Care must be taken to ensure that all salts and residue from the reaction have been removed. The pH of the surface should be checked, as per ASTM D4262, following acid etching.

For grouting applications, ensure that the hole is free of any debris or standing water.

**Steel:** All oils, greases, dirt, old coatings and chemical contaminants should be removed. All surfaces should be blasted to a white metal finish using clean dry aggregate.

4. **MIXING INSTRUCTIONS:** Premix Part B (Hardener) to a uniform color and viscosity. Pour the entire contents of Part A, (Base) into Part B (Hardener), and mix thoroughly for a minimum of 3 minutes. Make sure to scrape the sides and bottom of mixing container while mixing. Do not whip or aerate DURALBOND while mixing. The final mixture should be a uniform gray without any streaks.

5. **APPLICATION TECHNIQUES:** Fresh to hardened concrete: Apply mixed DURALBOND by brush, roller, broom or spray. Place fresh concrete while DURALBOND is still tacky, the contact time being typically 2-3 hours at 75°F and 1-1.5 hours at 90°F. If DURALBOND loses tackiness, remove surface contaminates and reapply DURALBOND before placing any fresh concrete. If more than 12 hours have elapsed, mechanical scarification is required prior to the application of a second epoxy coat.

**Bonding anchor bolts/dowels:** DURALBOND can be used neat or with an aggregate to anchor bolts in vertical holes in horizontal slabs. Depth of embedment is typically 10-15 times the bar diameters and the hole should be no greater in diameter than 1/4 inch larger than the rod to be anchored. For more information on anchor bolt grouting, consult the Anchor Bolt Grouting Installation guidelines which are available upon request.

**Repair horizontal cracks:** Apply the mixed neat material to the vee-notched crack until the crack is filled completely.

**Epoxy mortar:** Combine clean, dry aggregates with freshly mixed epoxy. The ratio of mixed epoxy to sand can vary from one part epoxy to two to five parts by volume of aggregate depending on the gradation of aggregate chosen. Mix only long enough to obtain good wetting. When mixing epoxy mortars it is recommended that a rotary drum mixer with a stationary paddle be used. Before placing mortar, a thin coat of aggregate free ("neat") epoxy should be applied to the prepared surface as a primer.

**Interior non-skid applications:** Apply mixed epoxy to the prepared surface and broadcast clean, dry aggregate to the desired texture. Back-roll with a mohair roller to embed the aggregate. This will provide a durable light duty traffic non-skid surface.

6. **COVERAGE:** As bonding compound for fresh to old concrete 65 - 75 sq.ft./kit. For anchoring, one kit used "neat" yields 160 cu. in. of grout. One kit of DURALBOND Pre-Pak mixed with 2 gal dry 20-40 mesh silica sand will yield approximately 570 cu. in. of mortar. In a non-skid application apply at a rate of 75 square feet per kit. Coverage will vary depending on surface texture, porosity and temperature.

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

8. **PACKAGING:** Premeasured kits.

**Storage:** 50-90°F (10-32.2°C), protected from moisture.

**Shelf life:** 2 years in proper storage.

9. **CAUTIONS:** Do not apply DURALBOND at application temperatures below 40°F. The materials should be conditioned at 75°F when used for low temperature applications. Do not aerate DURALBOND during mixing. New concrete must be placed while DURALBOND is tacky. Do not thin with solvents.

10. **ENVIRONMENTAL AND SAFETY PRECAUTIONS: 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 or 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: 1-800-862-2667 (TAMMS) 1-800-424-9300 (CHEMTREC).

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

TAMMS INDUSTRIES, INC.  
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800-862-2667 FAX:815-522-2323  
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