

FIBBOND 253

Epoxy Bonding Adhesive For Concrete

DESCRIPTION

Fibbond 253 is a 100 % reactive, 2 - component material designed as a moisture insensitive adhesive and binder for numerous application needs. Fibbond 253 provides normal working time when bonding dry or damp concrete at temperature above 4°C.

AREAS OF APPLICATION

- Priming
 - Sealing
 - Bonding Toppings
 - General Adhesive
 - Floors and Joints
 - Repairs Material
 - Non-Sag Material
1. At temperature higher than 32°C, the medium viscosity formulation may be more suitable for these applications. Gel times will be extremely short.
 2. At lower temperatures below 16°C the low viscosity formulation may be more suitable for these applications.

FEATURES & BENEFITS

More flexible than high modulus systems to take additional movement. Low viscosity facilitates penetration into cracks or filling of cold joints.

- Excellent adhesive for bonding together concrete, steel, ceramic or wood materials
- Bonds fresh concrete toppings to harden concrete slabs.
- Protects concrete substances against chemical attack including most acids and caustics.
- May be extended with sand or aggregate for thick applications and mortar repairs.
- Designed for use at temperatures of 4oC and above

TECHNICAL SPECIFICATIONS

Typical properties of all Fibbond 253 Systems when tested @ 12°C under laboratory conditions.

Gel Time ASTM C 881 -90	:	30 min
Working Time over concrete	:	50 min
Bond Strength ASTM C 882 @ 48 hours	:	>7.6 MPa
Bond Strength ASTM C 882 @ 14 hours	:	>15.2 MPa
Water absorption ASTM D 570	:	< 0.2 %
Durometer ASTM D 2240 "D Scale"	:	> 70 - 75
Tensile Strength ASTM D 638	:	> 34.5 MPa
Compressive Modulus of Elasticity ASTM D 638	:	2069 MPa
Tensile Elongation ASTM D 638	:	9.0 %
Compressive Strength ASTM C 695	:	> 103.4 MPa
Shelf Life	:	2 years in unopened containers

COVERAGE

Coverage rates m²/litre * As
As primer 200 - 250 gm/m²
As bonding agent 250 - 300 gms/m²



APPLICATION METHODOLOGY

SURFACE PREPARATION

New concrete must be a minimum of 28 days old and possess an open, porous and textured surface with all curing compounds and sealers removed. Old concrete must be clean and well textured. All oil, dirt, debris, paint and unsound concrete must be removed. The surface must be prepared mechanically using a scabbler, bushhammer, shotblast or scarifier or similar equipment, which will give a surface profile commensurate with the application. Coating applications should have a light sandblast appearance while topping applications should have the surface of the concrete profiled to expose the large aggregate of the concrete. The final step in cleaning should be the complete removal of all residues with a vacuum cleaner or pressure washing.

Acid etching is acceptable only when mechanical preparation is impractical. It is recommended that only contractors experienced in the acid etching process use this means of surface preparation. The salts of the reaction must be thoroughly pressure washed away. Allow the concrete to completely dry.

NOTE: Even with proper procedures, an acid etched surface may not provide as strong a bond as mechanical preparation procedures.

MIXING

All materials should be in the proper temperature range of 16°C - 32°C. Mix part A and B (Resin & Hardener) for 2 minutes using a drill and mixing prop. For ease of mixing, add the part B to the part A (not the reverse). The epoxy must be well mixed to ensure proper chemical reaction.

If aggregates is to be added, the aggregate is mixed into the epoxy after the Part A and Part B have been premixed together. Place immediately.

APPLICATION

(Priming, Bonding, Sealing or Coating) Apply material by roller, squeegee or airless sprayer in a uniform fashion. Do not allow the material to puddle. Extremely porous surfaces may require a second coat for proper ultimate performance.

PRIMING & BONDING

If using Fibbond 253 as a bonding agent for a cementitious Topping, place the topping on the Fibbond 253 while the epoxy is still wet. If the epoxy has become "tacky" to the point where it is no longer a sticky liquid, a fresh coat of Fibbond 253 must be applied before the topping is placed.

SEALING & COATING

If a second coat of Fibbond 253 is to be placed on the concrete, the first coat should be slightly tacky (4 -10 hours old) when the second coat is applied. A slip resistant surface can be created by broadcasting silica sand (20 - 50 mesh) into the coating and then back casting to embed the sand.

REPAIR MORTARS

The surface should be primed with Fibbond 253 prior to application of the repair mortar. Mix the epoxy unit (Part A with Part B) prior to adding the Aggregate. Trowel the mortar into place.

CLEAN UP

Clean tools and equipment with solvent such as Fibrex Solvent, Xylene, Toluene or MEK. Do not allow the epoxy to harden on equipment.

PRECAUTIONS

- This product is primarily intended as an adhesive.

- This product may vary in color and may yellow and chalk in prolonged exposure to sunlight.
- Bring materials as close to 21oC as possible. Store in room temperature environment 24 hours prior to use. Do not heat with open flame.
- Store indoors at 7 - 43oC
- Epoxy components may cause irritation. Avoid contact with eyes and skin.
- Do not apply over freestanding water.
- Do not apply over hardened primer or old epoxy without proper surface preparation.
- This product may be used for anchoring in non-critical applications. For critical applications use Fibrex 452 or Fibrex 620 Epoxy systems.
- Not recommended for use as a surface sealer over new concrete less than 30 days old.
- Not recommended for use when base concrete is at a temperature under 4oC.

PACKAGING

Fibbond 253 is two-part system, Part A (Base) to Part B (hardener). The units are pre-proportioned and packaged project standard. Fibbond 253 Epoxy System is often used as an anchoring material for non-critical applications. Repair mortar can be made with these products by adding aggregate. Size, gradation and the amount of aggregate will be determined by the application.

Clean tools and equipment with solvent such as Fibrex Solvent, Xylene, Toluene or MEK. Do not allow the epoxy to harden on equipment.

PRECAUTIONS

- This product is primarily intended as an adhesive.

WARRANTY : Fibrex Construction chemicals Pvt.Ltd ("Fibrex") solely and expressly warrants that its products shall be free from defects in materials and workmanship for one (1) year from the date of purchase. Unless authorized in writing by an officer of Fibrex, no other representations or statements made by Fibrex or its representatives, in writing or orally, shall alter this warranty. FIBREX MAKES NO WARRANTIES, IMPLIED OR OTHERWISE, AS TO THE MERCHANTABILITY OR FITNESS FOR ORDINARY OR PARTICULAR PURPOSES OF ITS PRODUCTS AND EXCLUDES THE SAME. If any Fibrex product fails to conform with this warranty Fibrex will replace the product at no cost to Buyer. Replacement of any product shall be the sole and exclusive remedy available and buyer shall have no claim for incidental or consequential damages. Any warranty claim must be made within one (1) year from the date of the claimed breach. Fibrex does not authorize anyone on its behalf to make any written or oral statements which in any way alter Fibrex's installation information or instructions in its product literature or on its packaging labels. Any installation of Fibrex products which fails to conform with such installation information or instructions shall void this warranty. Product demonstrations, if any, are done for illustrative purposes only and do not constitute a warranty or warranty alteration of any kind. Buyer shall be solely responsible for determining the suitability of Fibrex's products for the Buyer's intended purposes.