

## Acid-resistant epoxy floor resurfacer

Technical Bulletin # 417B

**Product Description**

A trowel applied, acid-resistant, novolac epoxy resurfacer and leveling system used to protect concrete in many corrosive environments.

- Resistant to 98% sulfuric acid
- High build 1/4" finish
- Much higher physical properties than those of concrete
- Fast cure allows for minimal downtime
- Durable non-slip finish
- Prepackaged in convenient kits

**Surface Preparation**

**New Concrete:** All surfaces must be firm, free of any laitance or efflorescence, clean, free of any adverse moisture conditions, have an appropriate surface profile, and be well cured before coating. Newly poured concrete must age at least 30 days at temperatures over 70°F before coating. Form release agents, sealers, curing compounds, salts, hardeners, and other foreign matter will interfere with adhesion and must be removed. Shot-blasting, mechanical scarification, suitable chemical means, or sandblasting should be employed to prepare substrate.

**Old Concrete:** Resurfacing older, uncoated concrete floors is done in much the same manner as new concrete. Before preparation, the concrete surface must be thoroughly cleaned with a strong detergent cleaner to remove all grease, oils, etc. All loose concrete must be removed.

**Steel/Wood:** Application to steel and wood floors is essentially the same as for concrete floors, however the surface preparation and structural considerations vary. Consult ITW Resin Technologies' Technical Department for specific recommendations.

**Previously Painted Surfaces:** Consult ITW Resin Technologies' Technical Service Department for proper evaluation and recommendations.

(For more detailed information, see Bulletin #400B)

**Recommended Systems**

See IMPAX Product Selection Guide for more details.

**Concrete/Wood:** 1st coat: IMPAX PENETRATING EPOXY PRIMER  
2nd coat: IMPAX 5020 AR ACID RESISTANT EPOXY FLOOR RESURFACER

**Steel:** 1st coat: Use an appropriate rust inhibitive epoxy primer  
2nd coat: IMPAX 5020 AR ACID RESISTANT EPOXY FLOOR RESURFACER

**Mixing and Application Instructions**

**Primer:** After proper surface preparation, apply Primer to an area no larger in size than can be surfaced within 6 hours. Prime all surfaces with Primer 2 hours before application of IMPAX 5020AR Epoxy Floor Resurfacer. It is strongly recommended that only full units be used, that both components are thoroughly mixed, and that all material from the bottom and sides of the container is mixed. We do not recommend using partial kits. Do not scrape or drain mixing containers.

The IMPAX 5020AR Epoxy Floor Resurfacer unit includes enough Primer for the unit area. Primer is to be applied to new or old concrete floors. Power mix Part A and Part B with a Jiffy mixer blade. Pour the mixed Primer onto the area to be primed, pouring in a narrow ribbon paralleling a wall or work area. Apply Primer with a 1/2" (12 mm) nap roller, rolling out a sufficient quantity to insure complete wetting of floor surface. Apply Primer in a liberal fashion on very porous surfaces. For irregular surfaces such as cracks, potholes and eroded areas and areas adjacent to walls and corners, application by brush is recommended. Check the primed area for holidays and dry spots, roll out any puddles. Primer can also be easily sprayed using conventional or airless spray equipment. Do not reduce this product.

**Resurfacer:** Pour hardener into slack-filled resin can and mix 1-2 minutes until homogeneous. Then pour entire mixture into a clean 5 gallon (19 liter) metal pail. Mount the metal pail into a 5 gallon (19 liter) portable electric mixer.\* Start mixer and operate for 1 minute working mixing blade slowly through its full arc. Slowly add all aggregate from bag over a period of 2-3 minutes. Continue mixing for 2 minutes until aggregate is wet-out thoroughly. Immediately empty mixture on to primed floor surface and spread to desired thickness with a metal float or by screeding. Finish surface with a 3" x 12" (75mm x 300mm) steel trowel. Keep trowel clean with IMPAX IXT 59 solvent. Pitch to drains as required.

\*If a 5 gallon (19 liter) portable electric mixer is not available, use conventional concrete mixing techniques. Contact our Technical Service Department for specific information, or if in doubt about procedures, techniques or equipment.

Using a steel trowel wetted with IMPAX IXT 59 solvent and held at an angle, apply pressure to the surface. Use a sweeping motion to level, pack and close the surface. A surface free of lap marks is achieved by maintaining a wet edge through continuous application of freshly mixed material. A properly finished surface will show few trowel marks and the surface will be closed to prevent acid penetration. Areas where IMPAX 5020AR EPOXY FLOOR RESURFACER will butt against existing concrete need to be "keyed" by saw-cutting or chipping a channel 1/4" (6mm) deep by 1" (25mm) wide around the perimeter of the resurfaced area and beveling material down to the level of existing concrete. Vertical surfaces can be encapsulated with IMPAX 5020AR EPOXY FLOOR RESURFACER if lathing materials are properly

**ITW POLYMER TECHNOLOGIES**

130 Commerce Drive • Montgomeryville, PA 18936 • 215-855-8450 • Fax 215-855-4688

[www.itwresintech.com](http://www.itwresintech.com)



applied to vertical concrete surfaces in advance. Please contact our Technical Service Department if needed. Clean all adjacent floor areas and equipment with IXT-590 before IMPAX 5020AR EPOXY FLOOR RESURFACER cures and hardens.

PACKAGING: AN 18 sq. ft. (1.7 m<sup>2</sup>) unit contains 1 batch. Coverage is 18 sq. ft. @ 1/4" (7 m<sup>2</sup> @ 6mm). A 432 sq. ft. (40 m<sup>2</sup>) unit contains 24 batches. Coverage is 432 sq. ft. @ 1/4" (40 m<sup>2</sup> @ 6mm). A 1296 sq. ft. (120 m<sup>2</sup>) unit contains 72 batches. Coverage is 1296 sq. ft. @ 1/4" (120 m<sup>2</sup> @ 6mm). Proportioning from a bulk unit is accomplished at the job site with the aid of a factory marked proportioning pitcher indicating correct amounts of resin and hardener to use for each batch. Sufficient primer is supplied with all units.

PRECAUTION: Keep away from heat and open flame. Maintain good ventilation and avoid breathing vapors. Practice good housekeeping procedures to avoid all skin contact. Aggregate contains crystalline silica. Proper respiratory protection must be employed to prevent over exposure to silica.

**Technical Information**

- COLOR: Cement, Haze Gray, Deck Gray, Tile Red
- GLOSS: Not Applicable
- VOLUME SOLIDS: 98% (Primer); 100% (Resurfacer)
- VOC: Primer: <25 g/L (<0.2 lbs./gal.) -  
Resurfacer: 0 g/L (0 lbs./gal.) -  
(Based on mixed components)
- COVERAGE/PACKAGING: Basic Unit: 18 sq. ft. @ 1/4"  
(1.7 m<sup>2</sup> @ 6mm) thickness  
Bulk Units: 432 sq. ft. @ 1/4"  
(40 m<sup>2</sup> @ 6mm) thickness  
Special Bulk Units: 1296 sq. ft. @ 1/4"  
(120 m<sup>2</sup> @ 6mm) thickness
- APPLICATION TEMPERATURES: 55°F minimum to 95°F maximum  
(12°C minimum to 35°C maximum)  
\*Must be 3°C (5°F) above dew point
- RELATIVE HUMIDITY: 85% maximum
- SERVICEABILITY: Foot Traffic 12 hrs. @ 72°F (22°C) @ 50% RH  
Full Service 24 hrs. @ 72°F (22°C) @ 50% RH  
Full Chemical Cure 5 days @ 72°F (22°C) @ 50%  
RH
- MIXING RATIO: 2:1 resin to hardener by volume - primer  
1.6:1 resin to hardener by volume - resurfacer
- INDUCTION: None
- POT LIFE: 6 hrs. - Primer; 45 min. - Resurfacer
- FLASH POINT: 70°C (158°F) PMCC — Primer;  
90°C (200°F) — Resurfacer
- CLEAN UP: IMPAX IXT 59 Solvent
- ABRASION RESISTANCE: 5 times concrete
- COMPRESSIVE STRENGTH: 11,000 psi ASTM-D-695 Modified
- FLEXURAL STRENGTH: 2,500 psi
- SERVICE TEMPERATURE: Continuous Low — -40°F (-40°C)  
Continuous High— 130°F (54°C)
- SHELF LIFE: 18 months in closed container stored  
at 50° to 90°F (10° to 32°C)

**Date**

07/2006

<p><u>General:</u> Every reasonable effort is made to insure the technical information and recommendations on these data pages are true and accurate to the best of our knowledge at the date of issuance. However, this information is subject to change without notice. Prior versions of this publication are invalid with the release of this version. Products and information are intended for use by qualified applicators that have the required background, technical knowledge, and equipment to perform said tasks in a satisfactory manner. Consult your local distributor for product availability, additional product information, and technical support.</p> <p><u>Warranty:</u> ITW Polymer Technologies, a division of Illinois Tool Works Inc., warrants that its products meet their printed specifications. This is the sole warranty. This warranty expires one year after product shipment.</p> <p><u>Warranty Claims:</u> If any product fails to meet the above, ITW Polymer Technologies will, at its option, either replace the product or refund the purchase price. ITW Polymer Technologies will have no other liability for breach of warranty, negligence, or otherwise. All warranty claims must be made in writing within one year of the date of shipment. No other claims will be considered.</p> <p><u>Disclaimer:</u> ITW Polymer Technologies makes no other warranty, expressed or implied, and specifically disclaims any warranty of merchantability or fitness for a particular purpose.</p>	<p>Suggestions concerning the use of products are not warranties. The purchaser assumes the responsibility for determining suitability of products and appropriate use. ITW Polymer Technologies' sole liability, for breach of warranty, negligence or otherwise, shall be the replacement of product or refund of the purchase price, at ITW Polymer Technologies' election. Under no circumstances shall ITW Polymer Technologies be liable for any indirect, incidental or consequential damages.</p> <p><u>Modification of Warranty:</u> No distributor or sales representative has the authority to change the above provisions. No change in the above provisions will be valid unless in writing and signed by an officer or the Technical Director of ITW Polymer Technologies. No term of any purchase order shall serve to modify any provision of this document.</p> <p><u>Mediation and Arbitration:</u> If any dispute arises relating to products or product warranties, either the purchaser or ITW Polymer Technologies may a) initiate mediation under the then current Center for Public Resources (CPR) Model Procedure for Mediation of Business Disputes, or b) initiate a non-binding arbitration under the rules of the American Arbitration Association for the resolution of commercial disputes.</p>
--	---