

Technical Bulletin # 416B

Product Description

A trowel applied epoxy surfacing and leveling system for new or old floors where extreme physical properties are required.

- 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, sandblasting, or suitable chemical means 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 our Engineering and Technical Service Department for proper evaluation and 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 epoxy FLOOR RESURFACER

Steel: 1st coat: Use an appropriate rust inhibitive epoxy primer.
2nd coat: IMPAX 5020 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 IMPAX Penetrating Epoxy Primer 2 hours before application of IMPAX 5020 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 5020 Epoxy Floor Resurfacer unit includes enough Primer for the unit area. Primer is to be applied to new or old concrete floors. Mix Part A and Part B components and drill 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" (13mm) 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 material.

Resurfacer: Pour hardener into slack-filled resin can and mix 1-2 minutes until homogeneous. Then pour entire mixture into a clean 5 gal (18.5 liter) metal pail. Mount the metal pail into a 5 gal (18.5 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 onto primed floor surface and spread to desired thickness with a metal float or by screeding. Finish surface with a 3" x 12" (76mm x 305mm) steel trowel. Keep trowel clean with IMPAX IXT 59 solvent. Pitch to drains as required.

*If a 5 gal (18.5 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. Areas where IMPAX 5020 EPOXY FLOOR RESURFACER will butt against existing concrete need to be "keyed" by saw cutting or chipping a channel 1/4"(6mm) deep by

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1"(25mm) wide around the perimeter of the resurfaced area and beveling material down to the level of existing concrete. Clean all adjacent floor areas and equipment with IMPAX IXT 59 solvent before IMPAX 5020 EPOXY FLOOR RESURFACER cures and hardens.

PACKAGING: A 20 sq. ft. (1.8 m²) unit contains 1 batch. Coverage is 20 sq. ft. @ 1/4" (1.8 m² @ 6mm). A 480 sq. ft. (44 m²) bulk unit is equivalent to 24 batches (coverage is 480 sq. ft. @ 1/4" (44 m² @ 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. A 1440 sq. ft. (133 m²) special bulk unit is equivalent to 72 batches (coverage is 1440 sq. ft. @ 1/4" (133 m² @ 6mm). With this unit, the liquid components are packaged in drums. 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<0.2 lbs./gal.- (<25 g/L) Resurfacer 0 lbs./gal(0 g/L)
COVERAGE:	20 sq. ft./batch @ 1/4" thickness (1.8m2/batch @ 6mm thickness)
PACKAGING:	20 sq. ft. (1.8 m ²) unit 480 sq. ft.(44 m ²) bulk unit 1440 sq. ft.(133 m ²) special bulk unit
APPLICATION TEMPERATURES:	55°F minimum to 95°F maximum (12°C minimum to 35°C maximum) *Must be 5°F (3°C) above dew point
RELATIVE HUMIDITY:	85% maximum
SERVICEABILITY:	Foot Traffic 12 hrs. @ 72°F (22°C) @ 50% RH Full Cure: 18 hrs. @ 72°F (22°C) @ 50% RH
MIXING RATIO:	2:1 resin to hardener by volume - primer 2:1 resin to hardener by volume - resurfacer liquids:40 lbs. of aggregate (1 bag) to 0.9 gal of Resurfacer liquids
INDUCTION:	None
POT LIFE:	6 hrs. - Primer; 45 min. - Resurfacer
FLASH POINT:	158°F (70°C) PMCC — Primer; 200°F (90°C) PMCC — Resurfacer
CLEAN UP:	IMPAX IXT 59 Solvent
ABRASION RESISTANCE:	5 times concrete
COMPRESSIVE STRENGTH:	10,000 psi (69 M Pa) ASTM-D-695
FLEXURAL STRENGTH:	2,446 psi (16.7 M Pa) ASTM-D-790
SERVICE TEMPERATURE:	-10°F to 150°F (-23°C to 65°C)
SHELF LIFE:	18 months in closed container stored at 50° to 90°F (10° to 32°C)

Date

07/2006

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