

IMPAX 5020 ACID RESISTANT TROWELABLE FLOOR RESURFACER

TECHNICAL BULLETIN # 1020B

PRODUCT DESCRIPTION: A trowelable, acid resistant epoxy resurfacer used to protect concrete, steel or wood in many corrosive environments, including 98% SULFURIC ACID exposure. The physical properties of IMPAX 5020AR TROWELABLE FLOOR RESURFACER are much higher than those of concrete and its excellent acid resistant properties make it a superior material for substrate protection when comparing to other epoxy systems. It is a 100% reactive epoxy system formulated to conform to present OSHA requirements for mixing, handling and usage and is designed for use where a durable, sanitary, chemical resistant antiskid floor is required. It meets USDA standards for maintenance protective coatings not in direct contact with food in federally inspected meat and poultry plants.

RECOMMENDED USES:

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| --Chemical Process Plants | --Mining Industry |
| --Petroleum Facilities | --Gas Processing |
| --Pulp and Paper Mills | --Sewage and Water Treatment |
| --Food Processing Facilities | |

SURFACE PREPARATION: (For more detailed information, see Bulletin #994)

New Concrete: All surfaces must be firm, clean, dry and well cured before resurfacing. Newly poured concrete must age at least 30 days at temperatures over 21°C (70°F) before coating. Form release agents, curing compounds, salts, hardeners and other foreign matter will interfere with adhesion and must be removed by sandblasting, shotblasting, mechanical scarification or suitable chemical means. If a curing membrane was not used, then proceed with a 16% muriatic acid etch (3.8 liter [1 gal.] 32% muriatic acid to 3.8 liter [1 gal.] water) at a rate of 1.8m²/liter (75 sq. ft./gal.)

Old Concrete: Resurfacing older, uncoated concrete floors is done in much the same manner as new concrete. Before etching, the concrete surface must be thoroughly cleaned with a strong detergent cleaner to remove all grease, oils, etc. All loose concrete must be removed. Form release agents, hardeners, etc., must be removed using same procedure as for new concrete.

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/Resurfaced Floors: Consult our Engineering and Technical Service Department for proper evaluation and recommendations.

RECOMMENDED SYSTEMS:

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

Steel: 1st coat: IMPAX RUST INHIBITIVE PRIMER
2nd coat: IMPAX 5020 ACID RESISTANT TROWELABLE FLOOR RESURFACER

MIXING AND APPLICATION INSTRUCTIONS: 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 TROWELABLE FLOOR RESURFACER.

Primer: The IMPAX 5020AR TROWELABLE 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 and drill. 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 12 mm (1/2") 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 and scrape entire mixture into a clean 19 liter (5-gal.) metal pail. Mount the metal pail into a 19 liter (5-gal.) 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 75mm x 300mm (3" x 12") steel trowel. Keep trowel clean with IMPAX IXT-59. Pitch to drains as required.

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MIXING AND APPLICATION INSTRUCTIONS: (Continued)

*If a 19 liter (5 gal.) 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 TROWELABLE FLOOR RESURFACER will butt against existing concrete need to be "keyed" by sawcutting or chipping a channel 6mm (1/4") deep by 25mm (1") 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 TROWELABLE FLOOR RESURFACER if lathing materials are properly applied to vertical concrete surfaces in advance. Please contact our Technical Service Department if needed. Clean all adjacent floor areas and equipment with IMPAX IXT-59 before IMPAX 5020AR TROWELABLE FLOOR RESURFACER cures and hardens.

PACKAGING: A 1.7 m² (18 sq.ft.) unit contains 1 batch (coverage is 1.7 m² [18 sq.ft. @ 6mm [1/4"]]). A 20 m² (210 sq.ft.) bulk unit is equivalent to 12 batches (coverage is 20 m² [210 sq.ft.] @ 6mm [1/4"]). 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 IMPAX PENETRATING EPOXY PRIMER is supplied with all units.

TECHNICAL INFORMATION

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| COLORS: | Cement, Haze Gray, Deck Gray, Tile Red |
| GLOSS: | Not Applicable |
| VOLUME SOLIDS: | 98% (Primer); 100% (Resurfacer) |
| VOC: (based on mixed components) | <20 gms/l (<0.2 lbs./gal.) - Primer 0 gms/liter (0 lbs./gal.) - Resurfacer |
| COVERAGE/PACKAGING: | Basic Unit: 1.7m ² @ 6mm (18 sq.ft. @ 1/4") thickness Bulk Unit: 20 m ² @ 6mm (210 sq.ft. @ 1/4") thickness |
| APPLICATION TEMPERATURES: | 12°C minimum to 35°C maximum (55°F minimum to 95°F maximum) |
| RELATIVE HUMIDITY: | *Must be 3°C (5°F) above dew point 85% maximum |
| SERVICEABILITY: | Foot Traffic -- 12 hrs. @ 22°C (72°F) @ 50% RH Full Service -- 24 hrs. @ 22°C (72°F) @ 50% RH Full Chemical Cure -- 5 days @ 22°C (72°F) @ 50% RH |
| MIXING RATIO: | 2 to 1 parts resin/hardener by volume - Primer 1.6 to 1 parts resin/hardener by volume - Resurfacer |
| INDUCTION: | None |
| POT LIFE: | 6 hrs. - Primer; 45 mins. - Resurfacer |
| FLASH POINT: | 30°C (87°F) PMCC -- Primer; 90°C (200°F) -- Resurfacer |
| VISCOSITY: | Not Applicable |
| REDUCER: | Not Recommended |
| ABRASION RESISTANCE: | 5 times concrete |
| COMPRESSIVE STRENGTH: | 11,000 psi ASTM-D-695 Modified |
| FLEXURAL STRENGTH: | 2,500 psi |
| SERVICE TEMPERATURE: | Continuous Low -- -40°C (-40°F) Continuous High-- 54°C (130°F) |
| SHELF LIFE: | 18 months in closed container stored at 10°C to 32°C (50°F to 90°F) |
| 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. |