

Technical Bulletin # 457

**Product Description**

An interior/exterior, high solids, chemically resistant, polyester aliphatic urethane floor coating.

- High gloss finish - abrasion and stain resistant
- Superior color retention and chalk resistance
- Anti-slip finish available
- Easily applied by brush, roll, or spray

**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:** Coating 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. Holes and cracks should be filled with IMPAX Crack Fillers before application of a coating. If surface deterioration presents an unacceptably rough floor, IMPAX 5020 Floor Resurfacer is recommended to patch and resurface damaged concrete.

**Steel:** All surfaces must be dry, clean and free of all previous coatings, rust and surface contamination. Minimum surface preparation is abrasive blast to Commercial Grade SP-6. Blasted surfaces must be coated within 8 hours. Prior to blast cleaning, remove all deposits of oil or grease using Solvent Clean method SP-1.

**Wood:** A clean, sound wood surface is required. Remove any oils and dirt from the surface, using degreasing solvent or strong detergent. Follow with sanding to remove loose or deteriorated surface wood and to obtain the proper surface profile. Consult ITW Resin Technologies' Technical Department for specific recommendations.

**Previously Painted Surfaces:** If the paint is peeling or degrading in any way, it should be completely removed by sanding, blasting or stripping. If previous paint coating is completely intact, the surface may be cleaned with a strong detergent or solvent and scuff sanded to remove the gloss. A spot test should be made by applying a small amount of coating over old paint. The old finish may wrinkle or lift within 60 minutes. If it does not, wait 5 days and test for adhesion and compatibility. Do this by cutting an "X" into the coating, place tape firmly over the cut, then strip with a hard, fast pull. If the old finish fails, it must be removed or an appropriate barrier coat should be considered.

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

**Recommended Systems**

See IMPAX Product Selection Guide for more details.

**Concrete/Wood:** First coat: Any appropriate IMPAX Primer (clear or gray).  
Finish coat(s): 1-2 coats of IMPAX HPU Low VOC (with anti-slip aggregate if requested)

**Steel:** First coat: Use appropriate rust inhibitive epoxy primer  
Finish coat(s): IMPAX HPU (with anti-slip aggregate if requested)

**Painted Surfaces  
in Sound Condition:** 1-2 coats of IMPAX HPU Low VOC (with anti-slip aggregate if requested)

**Mixing and Application Instructions**

Premix resin component before combining. Pour hardener into slack filled resin can and power mix at approximately 250 RPM for 2-3 minutes to insure that all pigment is completely dispersed. Anti-slip additive is mixed into the final coat just prior to application. Application over rough surfaces will reduce coverage. IMPAX HPU coating is easily sprayed, brushed or rolled. A 3/4" pile roller is recommended for the final coat when using an anti-slip aggregate otherwise, a high quality 3/8" nap roller cover is recommended. Consult ITW Resin Technologies' Technical Department for spraying recommendations. Material cannot be sprayed if anti-slip aggregate is used. It is strongly recommended that only full units are used, that both components are thoroughly mixed, and that all material from the bottom and sides of the container are mixed. We do not recommend using partial kits. Do not scrape or drain mixing containers. Clean all equipment with MEK.

**IMPORTANT:** Addition of anti-slip aggregate produces only a light non-slip texture. Product should not be used in place of a non-skid finish when safety is a concern.

ITW POLYMER TECHNOLOGIES

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

ITW Polymer Technologies  
Registered to ISO 9001:2008  
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ISO 9001:2008  
Q 06428

PRECAUTION: Combustible - Keep away from heat and open flame. Maintain good ventilation and avoid breathing vapors. Avoid prolonged or repeated skin contact.

**Technical Information**

COLOR: Haze Gray, Deck Gray, Sandstone, Tile Red, White, Clear  
 GLOSS: Full  
 VOLUME SOLIDS: 65%  
 VOC: <2.8 lbs./gal.(<340 g/L).  
 Check local VOC regulations before applying.  
 Thinning is not recommended in areas where v.o.c. limits are more stringent than national v.o.c. limits.  
 COVERAGE: 260 ft<sup>2</sup>/gal @ 5 to 7 mils WFT/3 to 5 mils DFT (6.13 to 7.37 m<sup>2</sup>/ltr. @ 127 to 178microns WFT./76 to 127 microns DFT) (microns)  
 PACKAGING: 1-gal. unit containing 1 gal. slack filled resin can, 1/2 gal. can hardener  
 5-gal. unit containing 5 gal. slack filled resin can, 2 gal. jug hardener  
 Appropriate size aggregate bag when anti-slip is requested.  
 APPLICATION TEMPERATURES: 40°F (14°C) minimum to 90°F (32°C) maximum  
 \*Must be 10°F above dew point  
 RELATIVE HUMIDITY: 85% maximum  
 SERVICEABILITY: Recoat: 6 hours min. @ 72°F (22°C) @50%RH  
 Foot traffic: 24 hrs. min. @ 72°F (22°C) @ 50% RH  
 Full Service: 72 hrs. min. @ 72°F (22°C) @ 50 RH  
 Full Cure: 7 days min. @ 72°F (22°C)@ 50% RH  
 MIXING RATIO: 2:1 resin to hardener by weight  
 INDUCTION: None  
 POT LIFE: 4 hrs. @ 72°F (22°C)  
 FLASH POINT: 108°F (42°C) TCC  
 VISCOSITY: 2500 - 3500 CPS colors, 500-1000 CPS clear  
 CLEAN UP: IMPAX IXT 59 Solvent  
 REDUCER: Urethane grade MEK-12 fluid oz. per gallon (90 ml/L) colors, 6 fluid oz per gal (45ml/L) clear  
 Check local V.O.C. regulations if thinning  
 SERVICE TEMPERATURE: 200°F (93°C) Dry Heat Resistance  
 SHELF LIFE: 12 months in closed container stored at 50° to 90°F (10° to 32°C)

Date 07/2006

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