

Technical Bulletin # 421A

Product Description

A two-component water based epoxy floor coating specifically designed to provide an attractive, uniform appearance in industrial environments. This product is formulated for use in moderate to high traffic conditions and moderate chemical exposure.

- High solids, low VOC and low odor
- Economical high build industrial coating
- Self priming over mechanically prepared substrates (i.e. shot-blast)
- Attractive full gloss finish

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 Filler 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.

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 the 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: 1st coat: IMPAX 33, IMPAX 3300LV-N, or IMPAX Water Based Epoxy Primers (Clear or Gray)
2nd coat: IMPAX 700 High Solids Water Based Epoxy

Painted Surfaces
in Sound Condition: 1st coat: IMPAX Water Based Epoxy Primer Clear
2nd coat: IMPAX 700 High Solids Water Based Epoxy

IMPORTANT: When recoating IMPAX 700 High Solids, it must be done no less than 8 hours after application and no more than 72 hours at 72°F (22°C) @ 50% RH. Product must be tack free before recoating.

If this "window" has passed, the surface of the cured IMPAX 700 High Solids must be abraded to ensure adhesion of subsequent coats.

Mixing and Application Instructions

Before mixing IMPAX 700 HS Water Based Epoxy Floor Coating, it is important that the surface be completely prepared and ready and that all tools and equipment are handy. To mix 1 gallon units: Use electric or air mixer (approximately 250 rpm) with metal mixing blade (Jiffy Model HS or equal). Pour stirred hardener contents into slack-filled resin can and mix for 2 to 3 minutes until material is thoroughly blended. To mix 5 gallon units: Use same procedure as 1 gallon units except a larger blade (Jiffy Model ES or equal) is required. 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. Do not reduce this material.

Pour mixed material directly on the surface in a long puddle and spread using a flat rubber squeegee. An applicator wearing spiked shoes should then immediately back roll the material with a quality "lint-free" 3/8" nap roller cover. Finish application by "laying off" in one direction. Care should be taken to apply the entire project in one continuous application. Avoid rolling back into material after it has been on the floor for more than fifteen minutes.

PRECAUTION: Maintain good ventilation and avoid breathing vapors. Avoid prolonged and repeated skin contact. Wear safety glasses and impervious gloves.

Technical Information

COLOR:	Haze Gray, Deck Gray, Sandstone, Tile Red, White and Clear
GLOSS:	Full Gloss
VOLUME SOLIDS:	96%
VOC:	<0.2 lb./gal. (<25g/L) (Based on Mixed Components)
COVERAGE:	200 ft ² /gal @ 7 to 9 mils WFT (18.5m ² /ltr @ 178 to 228 microns WFT)
PACKAGING:	1 gal. unit containing 1 gal. can (slack-filled) resin, 1 qt. can (slack-filled) hardener (3.5 liters unit volume) 5 gal. unit containing 5 gal. can (slack-filled) resin, 1-1/2 gal. plastic jug hardener (18 liters unit volume)
APPLICATION TEMPERATURES:	55°F minimum to 95°F maximum (12°C minimum to 35°C maximum) *Must be 5°F above dew point
RELATIVE HUMIDITY:	85% maximum (below 80% for best results)
SERVICEABILITY:	Recoat - 8 hours minimum @ 72°F (22°C) @ 50% RH, 72 hours maximum. 24 hours @ 72°F (22°C) @ 50% RH for light foot traffic, 72 hours for full service and 5 days for full chemical cure.
MIXING RATIO:	COLOR—3 to 1 parts epoxy resin/hardener by volume CLEAR— 3 to 1.7 parts epoxy resin/hardener by volume Consult ITW Resin Technologies' Technical Dept for details
INDUCTION:	5 Minutes
POT LIFE:	40 minutes @ 72°F (22°C)
FLASH POINT:	200°F (93°C)
VISCOSITY:	2,400 cps
CLEAN UP:	IMPAX IXT 59 Solvent or Xylol
SERVICE TEMPERATURE:	180°F (82°C) Dry Heat Resistance
SHELF LIFE:	1 year in closed container stored @ 50°F to 90°F (10° to 32°C)

Date

07/2006

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