

PHILLYCLAD® 6470

High Build Heavy Duty Coating

Technical Bulletin #963H

PRODUCT DESCRIPTION: A 100% solids, two component, high build epoxy protective coating developed for severe environmental conditions. PHILLYCLAD 6470 provides a tough flexible coating with a dry film thickness of 10-15 mils per coat. Excellent adhesive characteristics insure a tight bond to most clean and sound surfaces. The exceptional abrasion, erosion and impact resistance provides considerable versatility for a broad range of applications. Good dielectric properties provide effective protection against galvanic corrosion where coated iron pump casings and impellers are utilized in conjunction with copper, nickel or other dissimilar metals.

RECOMMENDED USES: Recommended marine applications include propeller shaft couplings, shafting struts, sea chests, condensers, valves and valve bodies, pump impellers and casings, storage or processing tanks, etc. Recommended industrial applications include protective coating of concrete foundations under pumps, tanks or equipment handling corrosive or erosive products, coating of pumps or valves and coating of containment areas or runoff trenches.

SURFACE PREPARATION:

New Concrete: All surfaces must be firm, clean, dry and well cured before coating. 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, shot blasting, mechanical scarification or suitable chemical means. If a curing membrane was not used, then proceed with a 16% muriatic acid etch at a rate of 7m²/3.7 liters (75 sq.ft./gal.)

Old Concrete: Coating 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. 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.

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.

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. 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.

RECOMMENDED SYSTEMS:

Concrete/Wood: 1st coat: IMPAX WATERBASED PRIMER GRAY
2nd coat: PHILLYCLAD 6470

Steel: 1st coat: IMPAX RUST INHIBITIVE PRIMER HS
2nd coat: PHILLYCLAD 6470

Painted Surfaces in Sound Condition: 1 coat: PHILLYCLAD 6470

IMPORTANT: When coating previously painted surfaces, always apply test patch and examine for lifting and proper intercoat adhesion. If lifting occurs, remove old coating or apply an appropriate barrier coat. Check local VOC regulations before applying.

ITW PHILADELPHIA RESINS

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



All printed statements, data and recommendations are based on reliable information and are presented without any guarantee or warranty. Statements regarding the use of ITW Philadelphia Resins products and processes are not to be construed as recommendations for use in violation of any applicable laws, regulations or patent rights. © All rights reserved.

PHILLYCLAD® 6470 High Build Heavy Duty Coating
Bulletin #963H, Page Two

MIXING & APPLICATION INSTRUCTIONS: Pour 1 part resin (white) and 1 part hardener (black) by volume into a container and mix at slow speed with appropriate Jiffy mixer blade (Model HS or equal) for 2-3 minutes until a uniform, streak-free gray color is obtained. Preferred application techniques are 9.5mm (3/8") roller or firm bristled brush. When conditions allow, material can be reduced up to 10% with MEK. PHILLYCLAD 6470 is sprayable using 30:1 pumps, 100 psi air pressure and airless equipment with 0.020 tips. Positive displacement proportioning pump with Kenics static mixer module is recommended due to the approximate 30 minute pot life @ 21°C (70°F). Again, material can be reduced up to 10% with MEK.

Subsequent coats can be applied as soon as preceding coat is firm to the touch, approximately 3 hours @ 22°C (72°F) surface temperature. Lower temperatures will increase cure time. Corrosion protection is improved through the application of two or more coats, particularly when surfaces will be submerged.

TECHNICAL INFORMATION

COLOR:	Light Gray
GLOSS:	Semi-Gloss
VOLUME SOLIDS:	100%
VOC: (based on mixed components)	0% gms./ltr. (0% lbs./gal.)
COVERAGE:	9.2 m ² /ltr. (100 sq.ft./gal.) @ 15 mils DFT 13.8m ² /ltr. (150 sq.ft./gal.) @ 10 mils DFT
PACKAGING:	7.5 ltr. unit containing 3.7 ltr. can epoxy resin, 3.7 ltr. can hardener (2-gal. unit containing 1-gal. can epoxy resin, 1-gal. can hardener) 7.57 liters unit volume 38 ltr. unit containing 19 ltr. can epoxy resin, 19 ltr. can hardener (10-gal. unit containing 5-gal. can epoxy resin, 5-gal. can hardener) 38 liters unit volume
APPLICATION TEMPERATURES:	12°C minimum to 35°C maximum (55°F minimum to 95°F maximum) * Must be 3°C (5°F) above dew point
RELATIVE HUMIDITY:	85% maximum
SERVICEABILITY:	Recoat - 3 hrs. minimum @ 22°C (72°F) @ 50% RH Full Service - 18 hrs. @ 22°C (72°F) @ 50% RH
MIXING RATIO:	1:1 equal parts epoxy resin/hardener by volume
INDUCTION:	None
POT LIFE:	30 mins. @ 22°C (72°F)
FLASH POINT:	90°C PMCC (200°F)
VISCOSITY:	Heavy, brushable and rollable
REDUCER:	MEK
SERVICE TEMPERATURE:	82°C (180°F) Dry Heat Resistance
FLEXURAL STRENGTH:	575 kg/cm ² (8,200 psi) ASTM-D-790
TENSILE STRENGTH:	330 kg/cm ² (4,700 psi) ASTM-D-638
PRECAUTION:	Keep away from heat and open flame. Maintain good ventilation and avoid breathing vapors. Avoid prolonged or repeated skin contact.

APRIL, 2003