



PHILLYBOND #6 - EPOXY REPAIR AND PATCHING COMPOUND

REVISED: 10/2023

TECHNICAL DATA SHEET #470

VERSION: B

PRODUCT DESCRIPTION

PHILLYBOND #6 is a two-component, high-strength epoxy paste for the repair of punctures or cracks in tanks, pumps, pipes, steam lines, sea chests, valve bodies, etc. The material is also used to fill holes, voids and to provide a smooth surface for repairs [at temperatures up to 428°F (220°C)], PHILLYBOND #6 is resistant to most acids, alkali, and hydrocarbons and will adhere to clean surfaces such as steel, cast iron, bronze, aluminum, copper, nickel, wood, and most plastics.

SURFACE PREPARATION

Repair surfaces must be clean and sound and free of oil, dirt, old paint, and other foreign matter. Blast, abrade or clean the surface with emery cloth to a rough bright finish for best adhesion. A final rinse of the surface with IXT 59 solvent, or equivalent, helps ensure the removal of grease and oils.

MIXING AND APPLICATION INSTRUCTIONS

Please refer to the appropriate safety data sheet (SDS) prior to using this product.

Mix white resin with black hardener - four parts resin to one

part hardener by weight or volume - with a putty knife or similar wide-blade tool until a uniform, streak-free color is achieved. As PHILLYBOND #6 is a fast-curing system, mix only that amount that can be used in 10-15 minutes. Apply the mixed compound to the repair area forming a cross-section of at least 3/8" (9.5mm) thick. The patch should extend at least 2" (5cm) on all sides of the damaged area. PHILLYBOND #6 may be smoothed by wetting a putty knife with IXT 59 solvent or water. After hardening PHILLYBOND #6 can be machined or sanded, as desired, for a smoother surface.

STORAGE RECOMMENDATIONS

All product components should be stored in a dry, shaded area in original unopened containers and within a temperature range of 65°- 95°F (16° - 35°C). For additional information, please refer to Technical Guide 1024.

REFERENCE

For any additional recommendations or applications beyond the typical ones listed in this document, please contact your local representative of our Worldwide Distributor Network or ITW Performance Polymers for further support.

PHYSICAL PROPERTIES

COMPRESSIVE STRENGTH (ASTM D695)	12,000 psi (82.7 MPa)
MAX. RECOMMENDED SERVICE TEMPERATURE	428°F (220°C)
SHEAR STRENGTH	1,000 psi (70.3 cm ² /kgf or 6.9 MPa)
CONSISTENCY	PASTE / PUTTY
MIL-SPEC	R-17882-C

The data shown reflect typical results based on laboratory testing under controlled conditions. Variations from the above data are typical for field-prepared samples.

PRODUCT INFORMATION

UNIT COVERAGE	15.5 in ³ (254 cm ³)
TYPICAL APPLICATION TEMPERATURES	55°F to 95°F (13°C to 35°C)
INITIAL CURE TIME (APPROXIMATE, BASED ON CONTACT SURFACE TEMPERATURES)	1 hr @ 72°F (22°C) & ½ inch (12.7 mm) thickness
POT LIFE (APPROXIMATE)	10 – 15 minutes @ 72°F (22°C)
MIXING RATIO	4:1 by volume and weight
COMPONENT WEIGHTS	RESIN (A): 0.89 lbs (405 grams) HARDENER (B): 0.22 lbs (105 grams)
COMPONENT COLORS	RESIN (A): White HARDENER (B): Black MIXED (A + B): Gray
SHIPPING WEIGHT	15 lb (6.8 kg) per case 10 Kits per Case
SHELF LIFE	2 years in dry storage
CHEMICAL RESISTANCE	Refer to Technical Bulletin 675

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130 Commerce Drive | Montgomeryville | PA 18936 | USA | T: +1-215-855-8450 | E-mail: customerservice.na@itwpp.com | www.itwperformancepolymers.com
Bay 150 | Shannon Industrial Estate | Shannon | County Clare | Ireland | T: +353 61 771 500 | E-mail: customerservice.shannon@itwpp.com