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E -BOND ZR-100 / CA-370 2:1 Combination (1204-C-1) EPOXY LAMINATING RESIN



FOR FIBERGLASSING AND THERMOSET PATCHES ON FIBERGLASS, WOOD, CONCRETE AND STEEL

For professional use only
 Not for sale to or use by the general public

DESCRIPTION

E-BOND LAMINATING RESIN is the finest product of its kind ever developed or FIBERGLASSING. I.E.C. research has produced these important characteristics: a simple mix ratio, a non-toxic curing agent, a low viscosity, a 50-minute pot life and a cure time of 6-8 hours.

The product is tough, durable and resistant to all marine elements.

CHARACTERISTICS

- SIMPLE MIX RATIO - 2 parts of "A" side to 1 part of "B" side by volume
- A NON-TOXIC CURING AGENT
- Zero VOC - Fully reactive, no low boiling constituents
- LOW VISCOSITY - Material mixed is mobile, easy-to-handle, mix and pour at room temperature
- 50-MINUTE POT LIFE - When mixed in half-gallon batches at 68°F. using a large, shallow container
- 6-8 HOUR CURE TIME - When applied at room temperature. Product achieves maximum properties in 24 hours

NOTE: POT LIFE DECREASES WITH INCREASE OF VOLUME OR TEMPERATURE

NOTE: PRODUCT WILL NOT CURE SATISFACTORILY BELOW 55°F.

Physical Properties

Mixing Ratio:	2:1 by volume
Viscosity:	2500 cps
Gel Time:	90-120 min.
HDT:	135°F
Tensile Strength:	8,600 psi
H₂O Absorption:	.20%

PHYSICAL PROPERTIES OF CURED MATERIAL

Excellent and high tensile and flexural strength, high resistance to mechanical and thermal shock, low shrinkage and moisture absorption are achieved with this product.

Compressive Yield Point (p.s.i.)	12,800	Flexural modules(p.s.i.)	3.46X10 ⁵
Tensile Ultimate (p.s.i.)	10,600	Mechanical Shock (lbs.)	9.43
Flexural Ultimate (p.s.i.)	12,900	Thermal Shock:	Passed all cycles

SURFACE PREPARATION

FIBERGLASS LAMINATING PROCEDURE ON WOOD, FIBERGLASS OR STEEL

FOR A QUICK, PERMANENT PATCH OF AN ENTIRE HULL FIBERGLASS LAMINATION, THE FOLLOWING PROCEDURE IS RECOMMENDED:

1. **WOOD:** Clean to bare substrate, removing all grease, oil, wax, soap, scaly paint, etc.
2. **CONCRETE:** Clean to remove all curing agents, grease, oil, wax, soap, scaly paint, etc. The ideal method is sandblasting to produce a profile. Application on new concrete must only be done after 28 days curing period.
3. **FIBERGLASS:** Light standing and solvent wash is recommended to remove most foreign matter. Carbon tetrachloride, acetate, etc. is suggested to rid surfaces of oil, grease, wax and mold lubricants.
4. **STEEL:** Level out voids of "dished" areas. Patching required should be done by adding an approved filler such as micro-balloons. Solvent wash and wire brushing will usually prepare the surface, but the ideal method is sandblasting.

MIXING INSTRUCTIONS

1. STIR CONTENTS OF BOTH "A" AND "B" SIDES BEFORE MIXING TOGETHER.
2. COMBINE 2 PARTS "A" SIDE TO 1 PART "B" SIDE, BY VOLUME.
3. STIR THOROUGHLY.

NOTE: MIX ONLY AS MUCH MATERIAL AS CAN BE USED IN 50 MINUTES. SUBSTANTIAL EXOTHERM HEAT DEVELOPS IN UNITS OF 1 PINT AND OVER. THIS HEAT ACCELERATES CURE AND IN A LARGE MASS COULD CAUSE FAST SETTING. QUANTITIES LARGER THAN 1 PINT SHOULD BE MIXED IN A TRAY HAVING A DEPTH OF NOT MORE THAN 1" SO AS TO PERMIT FAST DISSIPATION OF THE EXOTHERM HEAT.

MATERIAL APPLICATION

Smooth a coating of E-BOND EPOXY LAMINATING RESIN over properly prepared surface. Thickness of the coat should be approximately twice that of the fiberglass cloth.

NOTE: RUBBER SQUEEGEE IS AN EXCELLENT APPLICATION TOOL.

Over the coating of the epoxy, lay a precut fiberglass cloth, pressing it into the resin coating and smoothing it out with the squeegee. It is important to "work out all air bubbles trapped under the fiberglass and/or resin.

Spread another thin coating of the EPOXY RESIN over-the fiberglass.

USING THE SQUEEGEE, SMOOTH OVER THE ENTIRE AREA TO THE DESIRED FINISH OF SURFACE.

CURING: STEPS 1, 2, & 3 MAY BE REPEATED, DEPENDING UPON BUILD-UP DESIRED.

PACKAGING

E-BOND #ZR100 / CA370 IS AVAILABLE IN 3 GALLON AND 15 GALLON UNITS.

CONSIDERATIONS FOR SURFACE PREPARATION TO AVOID EPOXY INTER-COAT ADHESION PROBLEMS

Amine Blush

Due to humidity and temperatures during curing of epoxies a phenomenon may occur creating an Amine Blush to appear on the cured surface of the epoxy. This may appear as a wax-like or greasy film. If the blush is slight it may be hard to detect visually or by touch. Blush will be more noticeable in cool, damp or humid conditions. Amine blush can hinder bonding of subsequent epoxy layers. The "blush" must be removed before applying additional layers of epoxy. An Amine blush is usually formed after the initial set of the epoxy. As a general rule if a second layer of epoxy cannot be applied within 12 hours after the previous application, it is recommended that the surface be properly prepared to remove any blush that may have occurred.

Light sandblasting between coat applications is the recommended procedure for surface preparation to remove blush or contaminants that may create inter-coat adhesion problems.

Amine blush may also be removed by wet sanding.

Some amine blushes may be water soluble. Test with a pressure wash at a minimum 750 psi with injection of sufficient Dawn[®] Dishwashing Detergent (usually 2-3%) to remove and clean the surface of contaminates. As an alternative wash down and thoroughly scrub the surface between applications with the solution of Dawn[®] Dishwashing Detergent. Rinse with plenty of fresh water to thoroughly remove the dissolved blush and allow to dry completely before application of the next layer of epoxy.

Note: Most contractors have advised wash down and scrub with Dawn[®] Dishwashing Detergent and water is easy and does not create a mess.
Do not use solvents

It is important that the user evaluate a small test area for proper preparation and bond before proceeding with a full scale operation.

CAUTION - E-Bond's epoxies contain alkaline amines. Strong sensitizer; MAY CAUSE SKIN SENSITIZATION or allergic response ranging from a mild wheezing to a severe asthmatic type attack. Avoid contact with skin or eyes. IN CASE OF CONTACT immediately wash skin with soap and water. Flush eyes with water and obtain medical attention. Wear protective clothing, goggles, and barrier cream on all exposed skin.

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