

Liquid Rock® Epoxy Foam Coating

PRODUCT OVERVIEW

Liquid Rock® Epoxy Foam Coating System is an easy-to-use liquid epoxy system formulated for a wide variety of fabrication applications. Liquid Rock® Foam Coating System is unfilled, low in viscosity, odorless and cures at room temperature. Cured epoxy displays exceptional physical and performance properties. It can be sanded, shaped, machined, drilled, tapped and painted.

Liquid Rock® Foam Coating System can be used with reinforcements such as S-Glass, E-Glass, Kevlar and Carbon fibers for lay-up applications or composite parts. Liquid Rock® Resin can also be mixed with fillers such as fumed silica for gel coat applications. Fillers can be added for fairing, filleting or bonding applications.

PRODUCT SPECIFICATIONS

Liquid Rock Resin & Hardener

Mix Ratio By Volume	5A : 1B
Mix Ratio By Weight	100A : 16 B
Mixed Viscosity - CPS. (ASTM D2393)	5,000
Specific Gravity - Mixed; g./c.c. (ASTM D1475)	1.30
Pot Life - Minutes (ASTM D2471)	20
Thin Film Working Time - Minutes	90
Cure Time - Hours	2-3 dry to touch 4-6 dust-free 18 through cure (times will vary depending on volume & temperature)
Color - Mixed	Clear Yellow
Shore D Hardness (ASTM D2240)	82
Ultimate Tensile - P.S.I. (ASTM D638)	40,000
Tensile Strength (ASTM D638)	25,000
Flexural Strength - P.S.I. (ASTM D790)	33,500
Flexural Modulus - P.S.I. (ASTM D790)	1.8 x 10 ⁶
Compressive Strength - P.S.I. (ASTM D695)	40,000

Applications:

- Wet Lay-Up Lamination
 - General Bonding & Repair
 - Clear Coating
 - Barrier Coating
 - Thin-Section Casting
 - Water Proofing
 - Patching & Small Laminates
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Advantages Include:

- Convenient Mix Ratios
- Easy-to-Use
- Excellent Moisture Resistance
- Low Viscosity
- Non-blush Formula
- Easy-to-Mix & Apply
- Exceptional Physical & Performance Properties

PROCESSING RECOMMENDATIONS

Preparation – Avoid breathing fumes - use in a well ventilated area. Wear safety glasses, long sleeves and rubber gloves to minimize skin contact. This material has a high exotherm (generates heat). Do not mix components in glass or foam containers. Materials should be stored and used in a room temperature environment (73°F/23°C). Elevated temperatures will reduce Pot Life. Liquid Rock® Resin and Hardener must be properly measured and thoroughly mixed to achieve full, high-strength, solid-cure properties. ***Because no two applications are quite the same, a small test application to determine suitability for your project is recommended if performance of this material is in question.***

Measuring / Dispensing – Accurate ratio measurements by volume or weight are required for the material to cure properly and develop full physical properties. Refer to specified Mix Ratios in Handling Properties for proper measurements. Dispense Parts A and B proper proportions into clean plastic, metal or wax-free paper containers.

Adding Color - Liquid Rock® Epoxy Foam Coating System can be colored with color tints. Pre-mix tint with Part A thoroughly and then add Part B.

Mixing – Be sure mixing utensils are clean and free of any potential contaminants such as dirt, dust or grease. Mix Parts A and B thoroughly for at least 3 minutes with a square edged mixing stick. Be aggressive and scrape sides and bottom of mixing container several times. Use the square edge of mixing stick to bring material off of the sides of container and blend. **If using a drill mixer**, follow with hand mixing as directed above to ensure thorough mixing. **NOTE:** If mixture is to be used for coating, pour into a roller pan to extend Pot Life.

Adding Fillers - A variety of dry fillers can be added. Pre-mix dry filler with Part A before adding Part B.

Important - Mixed Liquid Rock® Resin with Liquid Rock® Hardener is exothermic, meaning it generates heat. A concentrated mass of mixed epoxy in a confined area such as a mixing container can generate enough heat to melt a plastic cup, burn skin or ignite combustible materials if left to stand for its full Pot Life. Do not use foam or glass mixing containers or pour sections thicker than 1/8" (0.32 cm). If a batch of mixed epoxy begins to exotherm, move it to an open air environment.

Applying – Mixed Liquid Rock® is initially a low viscosity liquid that can be poured up to 1/8" (0.32 cm) thickness. **Foam Coating:** cut the bristles of a chip brush 30% for better control. After epoxy is mixed, you must work quickly to apply multiple layers. Brush an initial gel coat of epoxy over surface. Apply reinforcement fabric evenly into gel coat. Using brush, gently use stippling motion to work fabric into epoxy. Ensure fabric ply is saturated. Plastic polyethylene spreaders may also be used. Alternate additional **thin** layers of epoxy and fabric using above application method. Add additional epoxy as needed to wet out subsequent layers. Repeat as necessary until desired thickness is attained. After final layer of fabric is applied, use lamination roller to evenly distribute epoxy and reduce air bubbles. Be mindful of your Thin Film Working Time.

Cure Time: Refer to specified Cure Times in Handling Properties at room temperature depending on mass. Cured material will be hard and unable to penetrate with a finger nail. Cured epoxy can now be dry sanded. ***If machining or sanding, wear NIOSH approved mask to prevent inhalation of particles.***

Heat Curing - This product will cure at room temperature and does not require heat. Cure time can be reduced by applying mild heat. The higher the curing temperature is, the higher the resulting Heat Deflection Temperature. With a higher temperature cure, a service temperature of 138°F / 59°C can be attained. Allow epoxy to cure for 30 minutes and then cure for 1 hour at 200°F / 93°C. Allow casting to cool to room temperature before handling.

Painting – Cured Liquid Rock® Foam Coating System can be painted and / or primed and then painted with acrylic enamel paints. Let paint fully dry before putting part into service.

Removing Epoxy – Uncured / Non-curing epoxy: Scrape as much material as possible from the surface using a scraper. Clean the residue with lacquer thinner, acetone or alcohol. Follow safety warnings pertaining to solvents and provide adequate ventilation.

The material safety data sheet (MSDS) for this or any Demand Products product should be read before using and is available on request. All Demand Products products are safe to use if directions are read and followed carefully.

Liquid Rock® Resin PART A:

WARNING: IRRITANT TO EYES, SKIN & MUCOUS MEMBRANES.

Liquid Rock® Resin is irritating to the eyes and skin. Avoid prolonged or repeated skin contact to prevent possible sensitization. Avoid breathing vapors and use only with adequate ventilation. Wear personal protective equipment.

First Aid: In case of eye contact, flush thoroughly with water for 15 minutes and get immediate medical attention. In case of skin contact, wipe clean with white vinegar and wash thoroughly with soap and water. If irritation persists, get medical attention. If swallowed, do not induce vomiting. Drink 1 - 2 glasses of water and get immediate medical attention. If vapors are inhaled or if breathing becomes difficult, remove person to fresh air. If symptoms persist, get medical attention.

Keep Out Of Reach Of Children.

Liquid Rock® Foam Coating System Hardeners PART B:

WARNING: IRRITANT TO EYES, SKIN & MUCOUS MEMBRANES.

Liquid Rock® Hardeners are corrosive materials and can cause severe eye and skin burns. They are sensitizers that may cause dermatitis from skin contact or vapor inhalation. Use these products only with adequate ventilation. Remove contaminated clothing and wash from skin with soap and water.

First Aid: In case of eye contact, flush thoroughly with water for 15 minutes and get immediate medical attention.

Keep Out Of Reach Of Children.

IMPORTANT: The information contained in this bulletin is considered accurate. However, no warranty is expressed or implied regarding the accuracy of the data, the results to be obtained from the use thereof, or that any such use will not infringe upon a patent. User shall determine the suitability of the product for the intended application and assume all risk and liability whatsoever in connection therewith.