



Marine Epoxy

Description: LePage® Marine Epoxy is a two-part system consisting of an epoxy resin and a hardener. The convenient syringe dispenses equal amounts of each component every time. When mixed in equal volumes, the resin and hardener react to produce a tough, rigid, high strength bond in 120 minutes. It can be applied and cured underwater. Ideal for repairing pipes. It cures to an off-white finish and can be easily sanded or machined. It does not shrink and is resistant to water and most common solvents.

Available As:

Item #	Size	Package
1919323	25 ml	Carded Syringe
1880793	25 ml	Carded Syringe

Features & Benefits:

- 2 Hour Set Time
- Dries Off-White
- Can be Applied and Cured Under Water
- Machinable
- Water & Solvent Resistant
- Will Not Shrink or Expand

Recommended For:

LePage® Marine Epoxy bonds metal, concrete, glass, fiberglass, ceramic, wood and certain rigid plastics. Use for surfaces exposed to water immersion. Ideal for PVC, copper, aluminum, brass and galvanized pipes.

For Best Results:

- Not for use on nylon, polyethylene (PE), polypropylene (PP) and polytetrafluoroethylene (PTFE)/Teflon® or flexible materials
- Not suitable for applications requiring short-term heat exposure of greater than 150°C (302°F)
- Not suitable for aquariums or potable water systems



TECHNICAL DATA SHEET

Typical Uncured Physical Properties:

Color:	White		
Hardener:	Tan		
Resin:	Tan		
Base:	Polymercaptan Hardener / Epoxy Resin		
Odor:	Amine		
Specific Gravity:			
Hardener:	1.49		
Resin:	1.56		
Flash Point:			
Hardener:	96°C (205°F)		
Resin:	204°C (400°F)		
VOC Content:	0% by weight	CARB	
	0 g/L	SCAQMD rule 1168	
Shelf Life:	24 months from date of manufacture (unopened)		
Lot Code Explanation:	For Example:		
Stamped on back of syringe label	LB4FAC569		
	4 = Last Digit in the Year of Manufacture	A – January	G – July
	4 = 2014 (i.e. 3 = 2013, 4 = 2014, etc.)	B – February	H – August
	F = Month produced (see chart at right)	C – March	J – September
	F = June	D – April	K – October
	June 2014 is the date of manufacture	E – May	L – November
		F – June	M – December

Typical Application Properties:

Application Temperature:	Apply between 4°C (39°F) and 35°C (95°F)		
Gel Time (2g : 2g):	120 to 150 minutes*		
Cure Time:	24 hours*		
	*Times are dependent on temperature, humidity and amount of adhesive used		

Typical Cured Performance Properties:

Color:	Off-white		
Cured Form:	Non-flammable solid		
Service Temperature:			
Long Term Exposure:	-23°C (-9°F) to 49°C (120°F)		
Short Term Exposure:	-23°C (-9°F) to 150°C (302°F)		
Water Resistant:	Yes		
Sandable:	Yes		
Paintable:	No		
Hardness:	85 ± 1	Shore D	
Tensile Shear Strength:			
Cold Rolled Steel, Sandblasted:			
6 hour cure:	5.95 ± 1.17 N/mm ² (863 ± 170 psi)		
24 hour cure:	20.68 ± 0.76 N/mm ² (3000 ± 110 psi)		
7 day cure:	24.72 ± 1.85 N/mm ² (3586 ± 268 psi)		
Aluminum 6061-T6, Sandblasted:			
24 hour cure:	18.97 ± 1.21 N/mm ² (2751 ± 175 psi)		
7 day cure, 24 hr water immersion:	18.24 ± 0.99 N/mm ² (2646 ± 143 psi)		
7 day cure, 8 day water immersion:	17.93 ± 0.60 N/mm ² (2600 ± 87 psi)		
Underwater Bonding:			
Aluminum, 7 day cure:	3.80 ± 0.54 N/mm ² (551 ± 78 psi)	Tensile Shear Strength	
FRP (dull side), 7 day cure:	15.18 ± 2.60 N/mm ² (2201 ± 377 psi)	Compression Shear Strength	
Solvent Resistance:			
24 hour gasoline immersion:	22.59 ± 1.73 N/mm ² (3329 ± 251 psi)	Tensile Shear Strength	Aluminum, 7 day cure



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Compressive Shear Strength:		24 hour cure
Sanded Hard PVC (White):	9.79 ± 1.01 N/mm ² (1420 ± 147 psi)	
Sanded Acrylite FF:	8.08 ± 2.86 N/mm ² (1172 ± 415 psi)	
Maple:	11.85 ± 2.55 N/mm ² (1718 ± 370 psi)	
Side Impact Resistance:	6.1 ± 1 Joules	Sandblasted Cold Rolled Steel 1" x 1", 7 day cure

Directions:

Tools Typically Required:

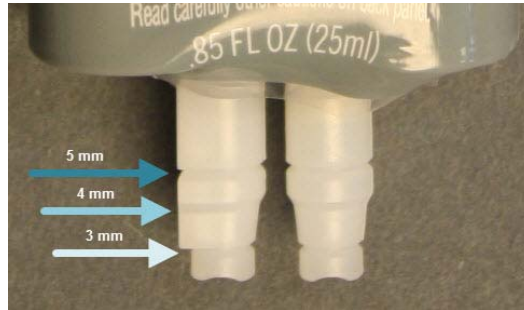
Utility knife, mixing tool/applicator (e.g. small flat plastic or wooden stick), disposable surface (e.g. foil, paper).

Safety Precautions:

Apply and cure in a well-ventilated area. Wear gloves and wash hands after use

Preparation:

Surfaces must be clean, dry and free from oil, wax, paint, rust, etc. Roughen smooth surfaces for better adhesion by sandblasting or sanding with an emery cloth. Wash glass and ceramic surfaces with soap and water then rinse and let dry. Pre-fit parts to be joined. Remove the plug from between the piston. Cut off the end tips of the syringe at one of the three cut-off points as illustrated below. For easier extrusion, cut at the 4 mm or 5mm opening. For more precise application, cut at 3 mm opening.



Turn syringe end up and pull plunger back slightly allowing air bubbles to rise to top. Press the plunger to expel air. Depress the double piston to dispense equal parts of the two materials on a disposable surface. Mix resin and hardener thoroughly (about 1 minute). Wipe syringe tips clean, retract piston slightly and close with the plug. Ensure that the plug is always placed in the same orientation on the tips.

Application:

Apply a small amount of mixed adhesive to both surfaces and assemble parts together. Remove any excess glue immediately with acetone. Support parts until bond sets (approx. 120-150 minutes at room temperature). Allow full cure of 24 hours before subjecting to normal use. Moderate heat will speed hardening while cooler temperatures will require a longer set time.

Clean-up:

Clean excess glue immediately by wiping with clean cloth. Acetone, mineral spirits or rubbing alcohol may be used to assist in removal. Cured adhesive may be cut away with caution using a sharp blade. Prolonged immersion in paint stripper will soften the cured adhesive to aid removal. Note: Acetone is highly flammable and not compatible with all surfaces. Follow manufacturer's instructions and test on small area before applying.

Storage & Disposal:

Not damaged by freezing. If frozen, warm to room temperature until the resin and hardener become liquid enough to mix. Use an approved hazardous waste facility for disposal.

Label Precautions:

CAUTION. POISON. CONTENTS MAY BE HARMFUL. Do not get in eyes or on skin or clothing. May cause allergic skin reaction. Wear impermeable gloves. **KEEP OUT OF REACH OF CHILDREN. FIRST AID TREATMENT:** Contains quartz silica, isophoronediamine, benzyl alcohol, propylene glycol, titanium dioxide, epoxy resins and amine curing agents.. If swallowed, call Poison Control Centre or doctor immediately. Do not induce vomiting. If in eyes, rinse well with water for at least 15 minutes. If on skin, rinse well with water.

Refer to Material Safety Data Sheet (MSDS) for further information.

Disclaimer:

The information and recommendations contained herein are based on our research and are believed to be accurate, but no warranty, express or implied, is made or should be inferred. Purchasers should test the products to determine acceptable quality and suitability for their own intended use. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.



TECHNICAL DATA SHEET



LePage Brand is part of the Henkel family of brands. Founded in 1876, Henkel is a global leader in the consumer and industrial businesses. Henkel operates worldwide with leading brands and technologies in three business areas: Laundry & Home Care, Beauty Care and Adhesive Technologies.

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