



# TECHNICAL DATA SHEET



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Item #	Package	Size
1919324	Carded Syringe	0.85 fl. oz.

## DESCRIPTION:

Loctite® Epoxy Marine 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.

## RECOMMENDED FOR:

Bonding 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.

## LIMITATIONS:

- Not recommended for polyethylene, polypropylene, non-stick coatings, nylon products or flexible materials.
- Do not use in applications requiring short term heat exposure greater than 302°F (150°C).
- Not suitable for use in aquariums or potable water systems.

## FEATURES & BENEFITS:

Feature	Benefits
Machinable.....	Will not crack when drilled
Water and solvent resistant.....	Highly durable
Apply and cure under water.....	Eliminates the need to drain out water before fixing
2 hour set time.....	Quick completion of projects
Convenient syringe.....	Dispenses equal amounts of each component

## TECHNICAL DATA

Typical Uncured Physical Properties		Typical Application Properties	
<b>Color:</b>	Hardener: White Resin: Tan	<b>Application Temperature:</b>	39°F (4°C) to 95°F (35°C)
<b>Base:</b>	Epoxy resin / Polymercaptan hardener	<b>Odor:</b>	Mild amine
<b>Specific Gravity:</b>	Hardener: 1.49 Resin: 1.56	<b>Gel Time:</b> (2g:2g)	120 to 150 minutes*
<b>Flashpoint:</b>	Hardener: 205°F (96°C) Resin: 400°F (204°C)	<b>Usable Strength:</b>	3 hours*
<b>VOC Content:</b>	0% by weight CARB (resin & hardener)	<b>Full Cure Time:</b>	24 hours*
<b>Shelf Life:</b>	24 months (from date of manufacture, unopened)	*Time is based on temperature, humidity, and thickness of epoxy applied	

<b>Lot Code Explanation:</b>	<b>LB7FAC56 (Example)</b>	<b>A</b> – January	<b>G</b> – July
	7 = Last digit in the year of manufacture	<b>B</b> – February	<b>H</b> – August
	7 = 2017	<b>C</b> – March	<b>J</b> – September (there is no I)
	F = Month produced (see chart on right)	<b>D</b> – April	<b>K</b> – October
	F = June	<b>E</b> – May	<b>L</b> – November
June 2017 is the date of manufacture	<b>F</b> – June	<b>M</b> – December	



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### Typical Cured Performance Properties

<b>Color:</b>	Off-White	<b>Cured form:</b>	Non-flammable, hard, solid.
<b>Paintable:</b>	No	<b>Water Resistant:</b>	Yes
<b>Hardness:</b>	85 (+/-1), Shore D	<b>Sandable:</b>	Yes
<b>Service Temperature:</b>	-10°F(-23°C) to 120°F (49°C) -10°F(-23°C) to 302°F (150°C)	Long term exposure Short term exposure	
<b>Test Methods</b>	<b>Cure Time</b>	<b>Data</b>	<b>Substrates</b>
<b>Tensile Shear Strength:</b>	6 hour cure 24 hour cure 7 day cure	863 ± 170 psi (5.95 ± 1.17 N/mm <sup>2</sup> ) 3000 ± 110 psi (20.68 ± 0.76 N/mm <sup>2</sup> ) 3586 ± 268 psi (24.72 ± 1.85 N/mm <sup>2</sup> )	Cold Rolled Steel, Sandblasted
	24 hour cure 7 day cure, 24 hr water immersion 7 day cure, 8 day water immersion 7 day, bonded & cured underwater	2751 ± 175 psi (18.97 ± 1.21 N/mm <sup>2</sup> ) 2646 ± 143 psi (18.24 ± 0.99 N/mm <sup>2</sup> ) 2600 ± 87 psi (17.93 ± 0.60 N/mm <sup>2</sup> ) 551 ± 78 psi (3.80 ± 0.54 N/mm <sup>2</sup> )	Aluminum 6061-T, Sandblasted
<b>Compressive Shear Strength:</b>	24 hour cure	1420 ± 147 psi (9.79 ± 1.01 N/mm <sup>2</sup> ) 1172 ± 415 psi (8.08 ± 2.86 N/mm <sup>2</sup> ) 1718 ± 370 psi (11.85 ± 2.55 N/mm <sup>2</sup> )	Sanded, Hard PVC (White) Sanded, Acrylite FF Maple
	7 day cure	2201 ± 377 psi (15.18 ± 2.60 N/mm <sup>2</sup> )	FRP (dull side)
<b>Solvent Resistance: (Tensile Shear Strength)</b>	7 day cure and 24 hour gasoline immersion	3329 ± 251 psi (22.59 ± 1.73 N/mm <sup>2</sup> )	Aluminum
<b>Side Impact Resistance:</b>	1" x 1", 7 day cure	6.1 ± 1 Joules	Cold Rolled Steel, Sandblasted

## DIRECTIONS:

### Tools Typically Required

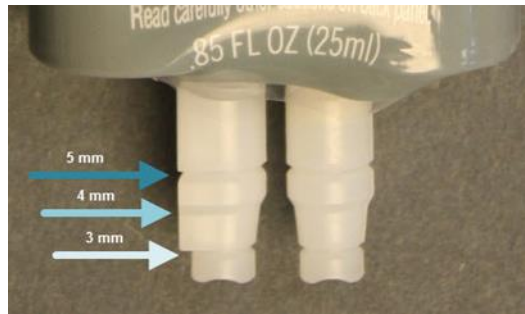
Utility knife, mixing tool/applicator (e.g. small flat plastic or wooden stick), disposable surface (e.g. foil).

### 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.





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## DIRECTIONS:

Turn syringe dispensing end up and pull plunger back slightly allowing air bubbles to rise to top. Take care to not exert excessive pressure or plunger may pull out of syringes. 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, join and press together. Remove any excess glue immediately by wiping with acetone. Support until bond sets approximately 120 to 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 with acetone before adhesive sets. 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.

## LABEL PRECAUTIONS

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.

## STORAGE AND DISPOSAL

**DANGER:** Causes eye, skin and respiratory tract burns. May cause allergic skin reaction. May be harmful if swallowed or absorbed through skin.

**WARNING:** Hardener contains quartz silica, isophorone diamine, benzyl alcohol, propylene glycol, titanium dioxide, and amine curing agents. Resin contains epoxy resin, and quartz silica. Do not get in eyes or on skin. Do not breathe vapors.

**FIRST AID:** For eye contact, flush with water for 15 minutes, call a physician. For skin contact, wash thoroughly with soap and water, call a physician if symptoms persist. If swallowed, DO NOT induce vomiting, call a physician. **KEEP OUT OF REACH OF CHILDREN.**



**WARNING: Cancer and Reproductive Harm – [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

Refer to the Safety Data Sheet (SDS) 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. Henkel recommends purchasers/users should test the products to determine acceptable quality and suitability for the intended use. All adhesive/sealant applications should be tested under simulated or actual end use conditions to ensure the adhesive/sealant meets or exceeds all required project specifications. Since assembly conditions may be critical to adhesive/sealant performance, it is also recommended that testing be performed on specimens assembled under simulated or actual production conditions. 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.



### Trusted Performance. Proven Results.

For over 50 years, Loctite Brand adhesives and sealants have taken on the toughest jobs. Used in race cars, airplanes, and even in the space-shuttle, Loctite provides solutions for the most demanding industrial, professional and consumer applications. Loctite gives you not the specialization, power and performance to not only get your job done, but to get it done right.

For Technical Assistance call : 1-800-624-7767 – Mon-Fri - 9:00a – 4:00p ET

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Loctite 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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