



# **Epoxy Clear Multi-Purpose**

**Description:** Loctite® Epoxy Clear™ Multi-Purpose is a two-part adhesive consisting of an epoxy resin and a hardener. When mixed in equal volumes, the resin and hardener react to produce a tough, rigid, high strength bond in 5 minutes for most projects. Available in a convenient dual syringe which delivers equal parts of both components every time. Epoxy Clear Multi-Purpose can be used as an adhesive for a wide range of materials or as a versatile filler for gap filling, surface repairs and laminating. It does not shrink and is resistant to water and most common solvents. Product dries clear making it perfect for transparent repairs or jobs that require invisible seams. It can be tinted with earth pigments, cement or sand for color matching and can be sanded and drilled.

#### Available As:

Item #	Size	Package
1943587	0.85 fl oz (25 ml)	Carded Syringe

#### Features & Benefits:

- Dries Clear
- Does Not Shrink
- Sets in 5-10 minutes for quick project completion
- Water Resistant
- High Strength
- Convenient syringe

## **Recommended For:**

Loctite Epoxy Clear Multi-Purpose can be used for bonding metal, glass, ceramic, wood, many rigid plastics, china, tile, fiberglass, concrete and stone. Can be combined with fiberglass cloth for a durable patch.

### Limitations:

- · Not recommended for polyethylene, polypropylene, non-stick coatings, nylon products or flexible materials
- Not suitable for applications requiring short-term heat exposure greater than 302°F (150°C)
- Not recommended for application with prolonged water immersion
- Not for use on potable water systems



**Typical Uncured Physical Properties:**  Color:

Hardener: Light yellow

Resin: Colorless

Base: Epoxy resin / Polymercaptan hardener

Odor: Mild amine

Specific Gravity:

Hardener: 1.04

Resin: 1.17

Flash Point:

Hardener: >200°F (93°C) >480°F (249°C) Resin:

**VOC Content:** 

**CARB** 0.1% by weight

Shelf Life: 24 months from date of manufacture (unopened)

F = June

Lot Code Explanation: For Example:

Resin & Hardener:

Stamped on back of syringe label LB**5F**AC569

> 5 = Last Digit in the Year of Manufacture 5 = 2015 (i.e. 4 = 2014, 5 = 2015, etc.)

F = Month produced (see chart at right)

C - March **D** – April

**H** – August J - September **K** – October

G - July

June 2015 is the date of manufacture

E – May F - June

A - January

**B** – February

L - November M - December

**Typical Application Properties:** 

Application Temperature:

Apply between 39°F (4°C) and 95°F (35°C)

Gel Time (5g: 5g): 4 to 10 minutes\* Handling Time: 20 minutes\* Usable Strength (500 psi): 30 minutes\*

Full Cure Time: 24 hours\*

\*Time is dependent on temperature, humidity and thickness of epoxy applied

**Typical Cured Performance Properties:**  Color:

Clear colorless to clear amber

Cured Form:

Non-flammable solid

Service Temperature:

-9°F (-23°C) to 120°F (49°C) -9°F (-23°C) to 302°F (150°C) Long Term (Continuous) Exposure Short Term (Intermittent) Exposure

Water Resistant: Yes

Sandable: Yes

Paintable: No but can be tinted using earth pigments, cement or sand

Hardness:  $80 \pm 1$ Shore D

Tensile Shear Strength:

Cold Rolled Steel, Sandblasted:

1 hour cure: 1322 ± 128 psi (9.11 ± 0.88 N/mm<sup>2</sup>) 4 hour cure:  $2494 \pm 78 \text{ psi } (17.20 \pm 0.54 \text{ N/mm}^2)$ 24 hour cure: 3437 ± 58 psi (23.70 ± 0.40 N/mm²) 3426 ± 155 psi (23.62 ± 1.07 N/mm<sup>2</sup>) 7 day cure:

Aluminum, Sandblasted:

24 hour cure: 2055 ± 290 psi (14.17 ± 2.0 N/mm²) 7 day cure, 7 day H2O immersion: 2048± 160 psi (14.12 ± 1.10 N/mm²)

Compressive Shear Strength:

1081 ± 199 psi (7.45 ± 1.37 N/mm<sup>2</sup>) 958 ± 268 psi (6.61 ± 1.85 N/mm²) 2088 ± 243 psi (14.40 ± 1.68 N/mm²)

Maple:

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24 hour cure

Sanded Hard PVC (White): Sanded Acrylite FF:



Solvent Resistance:

24 hour gasoline immersion:  $3216 \pm 275 \text{ psi } (22.17 \pm 1.90 \text{ N/mm}^2)$ 

Tensile Shear Strength Aluminum, 7 day cure

Side Impact Resistance:

6.8 Joules

Sandblasted Cold Rolled Steel

1" x 1", 7 day cure

#### **Directions:**

#### **Tools Typically Required:**

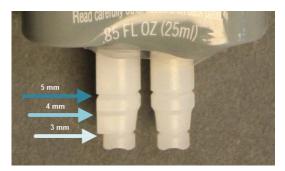
Utility knife, mixing tool/applicator (e.g. small flat plastic or wooden stick), disposable surface (e.g. foil, paper).

#### **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:

For best results apply a small amount of mixed adhesive to both surfaces within one to two minutes of mixing and press together. Placing parts together close to the 5 minute set time will reduce adhesion. Remove any excess glue immediately. Support bond for 10 minutes at room temperature. Usable strength achieved in 1 hour. Fully cured in 24 hours.

#### Clean-up:

Clean excess glue immediately by wiping with clean cloth. Acetone 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:**

**DANGER:** Corrosive. Causes eye and skin burns. May cause allergic skin and respiratory reaction. May be harmful if absorbed through skin.

**DANGER:** Resin contains epoxy resin. Hardener contains polymercaptan and amine curing agents. 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 THE REACH OF CHILDREN.** 

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. 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.





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