



TECHNICAL DATA SHEET



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DESCRIPTION

Loctite® Epoxy Weld™ Bonding Compound is a two-part system consisting of an epoxy resin and a hardener. When mixed in equal volumes, the resin and hardener react to quickly produce a tough, rigid, high strength bond. Loctite® Epoxy Weld™ can be used as a convenient alternative to welding. It can be used as an adhesive for repairing, filling and rebuilding all metal and common surfaces. It cures to a metallic gray finish and can be easily sanded, drilled, machined or painted when fully cured. Loctite® Epoxy Weld™ does not shrink and is resistant to most shop fluids such as water, diesel fuel, gasoline, antifreeze, hydraulic fluid, motor oil and transmission fluids.

RECOMMENDED FOR:

Bonding various types of metal such as iron, steel, aluminum, brass, bronze, copper and pewter. Can also bond to wood. Use for repairing machinery, appliances, tools, lawnmowers, automotive components, pipes, and imbedding bolts and screws into metal.

NOT RECOMMENDED FOR:

- Polyethylene, polypropylene, nylon, polytetrafluoroethylene (PTFE)/Teflon® or flexible materials
- Applications that require a continuous temperature greater than 300°F (149°C)
- Continuously wet areas or water immersion
- Potable water systems

FEATURES & BENEFITS:

Feature	Benefits
High impact resistance.....	Won't crack when drilled or machined
Water resistant.....	Can be used outdoors
Does not shrink.....	One-time application
Sets in 4 to 6 minutes.....	Quick completion of project
High heat resistance.....	Can withstand temperatures up to 350°F (177°C) intermittently
Exceptional bond strength.....	Good for applications requiring shear strength up to 3300 psi



Item #	Package	Size
1360700	Carded Tubes	2 x 1 oz.

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:
Avoid skin contact. Keep away from eyes. Avoid prolonged breathing of vapors. Apply in a well ventilated area. Open windows and doors to achieve good cross-ventilation. Wear safety glasses to protect eyes, and rubber or plastic gloves to protect skin.

Preparation:
Protect work area. Surfaces must be clean, dry and free from oil, wax and paint. For better adhesion, roughen smooth surfaces prior to cleaning. Pre-fit parts to be joined. Pierce tube nozzles using the reverse side of the caps. Squeeze out equal amounts of resin and hardener on a clean, disposable surface. Prepare only as much as can be used within 3-5 minutes of mixing. Recap tubes immediately after use. Match the black cap with the resin and the white cap with the hardener. Mix resin and hardener together for approximately 1 minute or until it is uniform in colour.

Application:

Apply to surfaces to be filled or bonded. Join and press parts together. When bonding butt joints, adhesive should be applied as a reinforcing fillet or splint over the joint for additional support. Remove any excess glue immediately with acetone, mineral spirits or rubbing alcohol (follow manufacturer's instructions). Support until bond sets in 10 to 15 minutes at room temperature. Parts can be handled within 15 minutes and machined within 16 to 24 hours. Cure time is lengthened in cooler temperatures and shortened in warmer weather.

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 AND 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

WARNING: May cause allergic skin reaction. May cause skin and respiratory tract irritation. Harmful if swallowed.

WARNING: Resin contains epoxy resin. Hardener contains amine resin. Avoid contact with eyes. Avoid prolonged contact with skin. Do not breathe in vapors. **FIRST AID:** For eye contact, flush with water for 15 minutes and call a physician. For skin contact, wash thoroughly with soap and water. If swallowed, DO NOT induce vomiting, call a physician. If this product is used in an OSHA regulated workplace consult the MSDS available from your distributor before use. **KEEP OUT OF THE REACH OF CHILDREN.**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Refer to the 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

Typical Uncured Physical Properties		Typical Application Properties	
<u>Color:</u>		<u>Application Temperature:</u>	39°F (4°C) to 95°F (35°C)
Hardener:	Beige to White	<u>Odor:</u>	Amine
Resin:	Black	<u>Gel Time:</u>	4 to 6 minutes
<u>Base:</u>	Amine Hardener / Epoxy Resin	<u>Handling Time:</u>	10 to 15 minutes
<u>Specific Gravity:</u>		<u>Machining Time:</u>	Minimum 16 hours
Hardener:	1.75	<u>Cure Time:</u>	24 hours
Resin:	1.82		
<u>Flash Point:</u> (Hardener, Resin)	> 400°F (204°C)		
<u>Shelf Life:</u>	24 months from date of manufacture (unopened)		Note: Cure time is dependent upon temperature, humidity and amount of product used
<u>Lot Code Explanation:</u>	For Example: LB3FAC569		
(Lot Code is stamped on back of syringe label)	3 = Last Digit in the Year of Manufacture 3 = 2013 (i.e. 1 = 2011, 2 = 2012, 3 = 2013, etc) F = Month produced (see chart to the right) F = 6 th Letter of Alphabet F = June	A – January B – February C – March D – April E – May F – June	G – July H – August J – September (there is no I) K – October L – November M – December

Typical Cured Performance Properties

<u>Color:</u>	Metallic gray
<u>Service Temperature:</u>	-10°F (-23°C) to 300°F (149°C)
Continuous	-10°F (-23°F) to 350°F (177°C)
Intermittent	
<u>Water resistant:</u>	Yes
<u>Sandable:</u>	Yes
<u>Paintable:</u>	Yes

Tensile Shear Strength:

Cold Rolled Steel, sandblasted:

1 hour	257 psi (1.77 N/mm ²)
2 hours	795 psi (5.48 N/mm ²)
4 hours	2005 psi (13.8 N/mm ²)
24 hours	3355 psi (23.1 N/mm ²)
8 days	3483 psi (24.0 N/mm ²)

Aluminum, sandblasted:

1 hour	265 psi (1.83 N/mm ²)
4 hours	1828 psi (12.6 N/mm ²)
24 hours	2771 psi (19.1 N/mm ²)

Compression Shear Strength:

Maple:

1 hour	310 psi (2.14 N/mm ²)
2 hours	680 psi (4.69 N/mm ²)
4 hours	1507 psi (10.4 N/mm ²)
24 hours	2461 psi (17.0 N/mm ²)
7 days	2368 psi (16.3 N/mm ²)