



## Epoxy Weld™ Bonding Compound

**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.

**Available As:**

Item #	Size	Package
1360700	2 x 1 oz	Carded Tubes

**Features & Benefits:**

- 5 Minute Set Time
- Exceptional Bond Strength
- High Impact Resistance
- Water Resistant
- High Heat Resistance
- Will Not Shrink or Expand

**Recommended For:**

Loctite Epoxy Weld Bonding Compound is designed 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.

**Limitations:**

- Not recommended for polyethylene, polypropylene, non-stick coatings, nylon products or flexible materials
- Not suitable for applications requiring long-term (continuous) heat exposure greater than 300°F (149°C)
- Not suitable for continuously wet areas or water immersion
- Not suitable for potable water systems



# TECHNICAL DATA SHEET

## Typical Uncured Physical Properties:

Color:	Hardener:	Beige to White
	Resin:	Black
Base:	Epoxy resin / Amine hardener	
Odor:	Sulfur	
Specific Gravity:	Hardener:	1.75
	Resin:	1.82
Flash Point:	Hardener:	> 399.2°F (204°C)
	Resin:	> 399.2°F (204°C)
VOC Content (Resin & Hardener):	N/A	CARB
Shelf Life:	24 months from date of manufacture (unopened)	

## Typical Application Properties:

Application Temperature:	Apply between 39°F (4°C) and 95°F (35°C)
Gel Time:	4 to 6 minutes*
Handling Time:	10 to 15 minutes
Usable Strength:	16 hours*
Full Cure Time:	24 hours*

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

## Typical Cured Performance Properties:

Color:	Metallic gray	
Cured Form:	Non-flammable solid	
Service Temperature:	-10°F (-23°C) to 300°F (149°C) -10°F (-23°C) to 350°F (177°C)	Long Term (Continuous) Exposure Short Term (Intermittent) Exposure
Water Resistant:	Yes	
Sandable:	Yes	
Paintable:	No	
Tensile Shear Strength:		
Cold Rolled Steel, Sandblasted:		
1 hour cure:	116 ± 15 psi (0.8 ± 0.1 N/mm <sup>2</sup> )	
4 hour cure:	2067 ± 164 psi (14.6 ± 1.1 N/mm <sup>2</sup> )	
24 hour cure:	3749 ± 41 psi (25.8 ± 0.3 N/mm <sup>2</sup> )	
7 day cure:	3912 ± 198 psi (27 ± 1.4 N/mm <sup>2</sup> )	
28 day cure:	4002 ± 76 psi (27.6 ± 0.5 N/mm <sup>2</sup> )	
Aluminum, Sandblasted:		
24 hour cure:	2924 ± 42 psi (20.2 ± 0.3 N/mm <sup>2</sup> )	
7 day cure:	2860 ± 151 psi (19.7 ± 1.0 N/mm <sup>2</sup> )	
28 day cure:	2928 ± 178 psi (20.2 ± 1.2 N/mm <sup>2</sup> )	
7 day cure, 7 day water immersion:	2788 ± 145 psi (19.2 ± 1.0 N/mm <sup>2</sup> )	
Brass:		
7 day cure:	1583 ± 276 psi (10.9 ± 1.9 N/mm <sup>2</sup> )	
Copper:		
7 day cure:	1134 ± 243 psi (7.8 ± 1.7 N/mm <sup>2</sup> )	
Stainless Steel:		
7 day cure:	2521 ± 417 psi (17.4 ± 2.9 N/mm <sup>2</sup> )	
Compressive Shear Strength:	24 hour cure	
Hard PVC (white), sanded:	742 ± 146 psi (5.1 ± 1.0 N/mm <sup>2</sup> )	
Acrylite FF, sanded:	756 ± 128 psi (5.2 ± 0.9 N/mm <sup>2</sup> )	
Maple:	2036 ± 253 psi (14.0 ± 1.7 N/mm <sup>2</sup> )	



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Solvent Resistance:		Tensile Shear Strength
Gasoline:	3717 ± 111 psi (25.6 ± 0.8 N/mm <sup>2</sup> )	Cold Rolled Steel, 7 day cure
10W30 Oil:	4065 ± 106 psi (28 ± 0.7 N/mm <sup>2</sup> )	24 hour solvent immersion
Anti-Freeze:	4031 ± 66 psi (27.8 ± 0.5 N/mm <sup>2</sup> )	
Side Impact Resistance:	>15.9 ± 4.7 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).

### 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 color.

### 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 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.

## 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:

**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 chemicals known to the State of California to cause cancer and/or birth defects and other reproductive harm.

**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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