



TECHNICAL DATA SHEET



Henkel Corporation
Professional and Consumer Adhesives
Rocky Hill, CT 06067
Phone 1-800-624-7767
Fax (440) 250-9661
www.henkel.com www.loctiteproducts.com



Item #	Package	Size
1365736	Carded Bottles	2 x 4 fl. oz.

DESCRIPTION:

Loctite® Epoxy Heavy Duty is a two-part adhesive consisting of an epoxy resin and a hardener. When mixed in equal volumes, resin and hardener react to produce a tough, rigid, high strength bond in 5 minutes for most projects. It can be used as an adhesive for a wide range of materials or as a versatile filler for gap bonding, surface repairs and laminating. Loctite® Epoxy Heavy Duty does not shrink and is resistant to water and most common solvents. It can be tinted with earth pigments, cement or sand for colour matching. It can be sanded and drilled.

RECOMMENDED 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.

NOT RECOMMENDED FOR:

- Polyethylene, polypropylene, nylon, polytetrafluoroethylene (PTFE)/Teflon® or flexible materials
- Applications requiring short-term heat exposure of greater than 302°F (150°C)
- Continuously wet areas or water immersion

FEATURES & BENEFITS:

Feature	Benefits
High impact resistant.....	Won't crack when drilled
Can be tinted.....	Match surrounding materials
Water resistant.....	Can be used outdoors
Does not shrink.....	One-time application
Sets in 5-10 minutes.....	Quick completion of project

DIRECTIONS:

Tools Typically Required:

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

Safety Precautions:

Well-ventilated area, gloves.

Preparation:

Surfaces must be clean, dry and free from oil, wax and paint. Roughen smooth surfaces for better adhesion by sandblasting or sanding with emery cloth. Wash glass and ceramic surfaces with soap and water then rinse and let dry. Pre-fit parts to be joined. Unscrew nozzles and remove seal. Replace nozzles, remove caps and cut tips. Dispense equal amounts of resin and hardener onto a clean, discardable surface. Prepare as much as can be used in 5 minutes. Recap bottles at once ensuring that the correct cap goes back on the correct bottle. Interchanging caps will make future cap removal impossible. Mix resin and hardener for one minute thoroughly.

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 with mineral spirits, acetone or rubbing alcohol (follow all solvent manufacturer's precautions). Support surfaces until bond sets (approx. 5 minutes). Usable strength achieved in 20 minutes. 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 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

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.**

WARNING: This product contains chemicals known as the State of California to cause cancer, 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:	Opaque	<u>Odour:</u>	Amine
Resin:	Clear	<u>Gel Time:</u>	5 minutes (Gel time is dependent on temperature and amount of adhesive used)
<u>Base:</u>	Epoxy resin / Polymercaptan hardener	<u>Usable Strength:</u>	20 minutes
<u>Specific Gravity:</u>		<u>Full Cure Time:</u>	24 hours
Hardener:	1.04		Note: Cure time is dependent upon temperature, humidity and amount of product used
Resin:	1.17		
<u>Flash Point:</u>			
Hardener:	199°F (93°C)		
Resin:	480°F (249°C)		
<u>VOC Content:</u>			
(Resin+ Hardener)	0.1% by weight		
<u>Shelf Life:</u>	24 months from date of manufacture (Unopened)		
<u>Lot Code Explanation:</u>	YYDDD YY = Last two digits of year of manufacture DDD = Day of manufacture based on 365 days in a year For example: 13061 = 61 st day of 2013 = March 2, 2013		

Typical Cured Performance Properties

<u>Colour:</u>	Clear to amber
<u>Service Temperature:</u>	
Long Term Exposure:	-9°F(-23°C) to 120°F(49°C)
Short Term Exposure:	-9°F(-23°C) to 302°F(150°C)
<u>Water Resistant:</u>	Yes
<u>Sandable:</u>	Yes
<u>Paintable:</u>	No but can be tinted using earth pigments, cement or sand
<u>Shore D Hardness, 24 hours:</u>	76 ± 1
<u>Tensile Shear Strength:</u>	
Cold Rolled Steel, Sandblasted	
30 minutes:	483 ± 129 psi (3.33 ± 0.89 N/mm ²)
1 hour:	1073 ± 150 psi (7.40 ± 1.03 N/mm ²)
4 hours:	3320 ± 149 psi (22.9 ± 1.03 N/mm ²)
24 hours:	3597 ± 71 psi (24.8 ± 0.49 N/mm ²)
Aluminum, Sandblasted, 24 hours:	2608 ± 432 psi (18.0 ± 2.98 N/mm ²)
<u>Compression Shear Strength, 24 hour:</u>	
Maple:	1771 ± 94 psi (12.2 ± 0.65 N/mm ²)
Acrylic (Hard):	637 ± 191 psi (4.39 ± 1.32 N/mm ²)
PVC (Hard):	748 ± 106 psi (5.16 ± 0.73 N/mm ²)
<u>Water Resistance – Tensile Shear Strength:</u>	
(Aluminum, Sandblasted, 7 day cure)	
Followed by 7 day Water Immersion:	2484 ± 114 psi (17.1 ± 0.79 N/mm ²)