

Revision: March 3, 2014 Supersedes: June 1, 2010 Ref. #: 193046 / 193045 Bulk: 1295957 / 252111

TECHNICAL DATA SHEET



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Item #	Package	Size
1405603	Carded Syringe	0.85 fl. oz.

DESCRIPTION:

Loctite® Epoxy Extra Time is a two-part system consisting of an epoxy resin and a hardener available in a convenient dual syringe. When mixed in equal volumes, resin and hardener react to produce a tough, rigid, high strength bond. Loctite® Epoxy Extra Time sets in 60 minutes making it excellent for complex multi-piece assemblies. It is used as an adhesive for a wide range of materials or as a versatile filler for gap bonding, surface repairs and laminating. Loctite® Epoxy Extra Time 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:

Bonds metal, glass, ceramic, wood, many rigid plastics, china, tile, fiberglass, concrete and stone. Can be used with fiberglass cloth for 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
- Potable water systems

FEATURES & BENEFITS:

Feature	Benefits	
Machinable	Won't crack when drilled	
Can be tinted	Blends with surroundings	
Water resistant	Can be used outdoors	
Does not shrink	One-time application	
Sets in 60 minutes	Ideal for complex multi-piece assemblies	
Convenient syringe	Dispenses equal amounts of each component every time	

DIRECTIONS:

Tools Typically Required:

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

Safety Precautions:

Apply in a well ventilated area. Wear gloves and wash hands after use.

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. Remove the plug from between the piston. Cut off the end tips of the syringe. Turn syringe end up and pull plunger back slightly allowing air bubbles to rise to top. Press plunger to expel air. Depress the double piston to dispense equal parts of the two materials on a disposable surface. 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. Mix resin and hardener for one minute thoroughly.

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Application:

Apply a small amount of mixed adhesive to both surfaces, join and press together. Remove any excess glue immediately with acetone. Support until bond sets (approx. 60 minutes) at room temperature. Leave undisturbed for 3 hours. Usable strength 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: Hardener contains polyamide resin, amorphous silica and amine curing agents. Resin contains epoxy resin. 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 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> Hardener:	Clear amber	Application Temperature:	39°F (4°C) to 95°F (35°C)
Resin:	Clear	Odour:	Amine
Appearance:	Liquid	<u>Gel Time:</u> (5 g : 5g)	4 to 10 minutes (Gel time is dependent upon temperature
Base:	Epoxy resin / Amine compound		and the amount of adhesive used)
Specific Gravity: Hardener:	4.00	Full Cure Time:	24 hours
Resin:	1.00 1.17		Note: Cure time is dependent upon temperature, humidity and amount of
<u>Flash Point:</u> Hardener: Resin:	212°F (100°C) > 480°F (249°C)		product used.
VOC Content: (Resin & Hardener)	0.1% by weight		
Shelf Life:	24 months from date of manufacture (unopened)		
Lot Code Explanation:	For Example:		
	LB 3F AC569		
(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)	A – January B – February C – March	G – July H – August J – September (there is no I)
,	F = Month produced (see chart to the right) F = 6 th Letter of Alphabet F = June	D – April E – May F – June	K – OctoberL – NovemberM – December

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Typical Cured Performance Properties

Color: Clear amber

Service Temperature:

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

Water Resistant: Yes

Sandable: Yes

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

Hardness, Shore D: 81 ± 1

Tensile Shear Strength:

Cold Rolled Steel, Sandblasted

1595 ± 189 psi 4 hours: 6 hours: $2845 \pm 34 \text{ psi}$ 24 hours: 2910 ± 818 psi

Aluminum, Sandblasted

24 hours: $1830 \pm 34 \text{ psi}$

<u>Compressive Shear Strength, 24 hours:</u> Hard PVC (White), Sanded:

1406 ± 372 psi $1680 \pm 379 \text{ psi}$ ABS: Acrylite FF, Sanded: 1458 ± 236 psi Maple: 1345 ± 283 psi

<u>Water Resistance – Tensile Shear Strength:</u> (Aluminum, Sandblasted, 7 day cure)

Followed by 24 hour Water Immersion: 1704 ± 543 psi Followed by 7 day Water Immersion: 1992 ± 36 psi

Solvent Resistance - Tensile Shear Strength:

(Aluminum, Sandblasted, 7 day cure)

 $2420 \pm 263 \text{ psi}$ Followed by 24 hour Gasoline Immersion:

Side Impact Resistance: 3.5 Joules

(Cold Rolled Steel, Sandblasted, 1"x1", 7 day cure)