



TECHNICAL DATA SHEET



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| Item # | Package | Size |
|---------|----------------|--------------|
| 1405602 | Carded Syringe | 0.85 fl. oz. |

DESCRIPTION:

Loctite® Epoxy Gel is a two-part adhesive consisting of an epoxy resin and a hardener, available in a convenient dual syringe. When mixed in equal volumes, the resin and hardener react to produce a tough, rigid, high strength bond in 6 minutes. The gel formulation is ideal for vertical surfaces and overhead repairs where dripping may occur. 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 Gel 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 |
|-------------------------|--|
| Gel Consistency..... | No dripping; Ideal for vertical surfaces |
| Machinable..... | Won't crack when drilled |
| Can be tinted..... | Matches surrounding materials |
| Water-resistant..... | Can be used outdoors |
| Does not shrink..... | One-time application |
| Convenient syringe..... | Dispenses equal amounts of each component every time |
| Sets in 6 minutes..... | Quick completion of project |

DIRECTIONS:

Tools Typically Required:

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

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 an emery cloth. Wash glass and ceramic surfaces with soap and water then rinse and let dry. Pre-fit all parts to be joined. Remove the plug from between the piston. Cut off the end tips of the syringe. Turn nozzle 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 discardable surface. Mix resin and hardener thoroughly. 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:

Apply a small amount of mixed adhesive to both surfaces, join and press together. Remove any excess glue immediately by wiping with acetone. Support until bond sets in about 6 minutes at room temperature. Support until bond sets in about 6 minutes at room temperature. For best results, clamp or secure as required for 1 hour. Usable strength in 8 hours. Moderate heat will speed hardening while cooler temperatures will require a longer set time.

Clean-up:

Clean excess glue immediately with mineral spirits or acetone. 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 polymercaptan, amorphous silica 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 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> | | <u>Application Temperature:</u> | 39°F (4°C) to 95°F (35°C) |
| Hardener: | Clear amber | <u>Odor:</u> | Amine |
| Resin: | Milky white | <u>Gel Time:</u> | 6 minutes |
| <u>Base:</u> | Epoxy resin / Polymercaptan hardener | <u>Usable Strength:</u> | 8 hours |
| <u>Specific Gravity:</u> | | <u>Full Cure Time:</u> | 24 hours |
| Hardener: | 1.40 | | |
| Resin: | 1.02 | | |
| <u>Flash Point:</u> | | | Note: Cure time is dependent upon temperature, humidity and the amount of product used. |
| Hardener: | > 199°F (93°C) | | |
| Resin: | > 482°F (250°C) | | |
| <u>VOC Content:</u> (Hardener + Resin) | 0.11% by weight (1.13 g/L) | | |
| <u>Shelf Life:</u> | 24 months from date of manufacture (unopened) | | |
| <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> | Clear 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>Hardness, Shore D:</u> (7 Day Cure, Sand, Test on 8th Day) | 81 ± 2 |
| <u>Tensile Shear Strength:</u> | |
| Sandblasted Cold Rolled Steel: | |
| 1 hour | 1039 ± 205 psi (7.16 ± 1.41 N/mm ²) |
| 4 hour | 2512 ± 67 psi (17.32 ± 0.46 N/mm ²) |
| 24 hours | 2901 ± 575 psi (20.00 ± 3.96 N/mm ²) |
| 7 days | 3161 ± 130 psi (21.79 ± 0.09 N/mm ²) |
| 28 days | 3315 ± 321 psi (22.85 ± 2.21 N/mm ²) |
| Sandblasted Aluminum, 24 hours: | 1937 ± 89 psi (13.36 ± 0.61 N/mm ²) |
| <u>Compressive Shear Strength:</u> | |
| Sanded Hard PVC (White), 24 hours: | 991 ± 254 psi (6.83 ± 1.75 N/mm ²) |
| Sanded Acrylite FF, 24 hours: | 724 ± 20 psi (4.99 ± 0.14 N/mm ²) |
| Maple, 24 hours: | 1889 ± 287 psi (13.02 ± 1.98 N/mm ²) |
| <u>Water Resistance – Tensile Shear Strength:</u> (Aluminum to Aluminum, 7 day cure) | |
| 24 hour Water Immersion: | 1962 ± 76 psi (13.53 ± 0.52 N/mm ²) |
| 7 day Water Immersion: | 2124 ± 108 psi (14.64 ± 0.74 N/mm ²) |
| <u>Solvent Resistance – Tensile Shear Strength:</u> (Aluminum to Aluminum, 7 day cure) | |
| 24 hour Gasoline Immersion: | 2682 ± 349 psi (18.49 ± 2.40 N/mm ²) |