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**MAINTENANCE MAGIC REPAIR KIT**  
**EPOXYLITE 223**

**DESCRIPTION:** A two container epoxy adhesive supplied in squeeze tubes. Both the resin and hardener are opalescent pastes which when mixed, cure to tough rigid solid.

**PURPOSE:        REPAIRS.. MENDS.. SEALS.. CAULKS.. INSULATES.. WATERPROOFS**

Typical applications: Repairs broken tools, glassware, ceramics, porcelain, seals pipes, cans, leaks, seams, rivet and bolt heads; insulated electrical connections, wires; waterproofs vessels, joints, wood, etc. Tubes make it ideal for production line bonding; also for inclusion in Component Kits for field assembly.

**CURED PROPERTIES:** Typical lap shear strength on aluminum to aluminum panels, > 10 Mpa (1500 psi), equivalent results on Formica, most polyesters, etched synthetic and natural rubbers, sodium etched PTFE, steel, copper, magnesium, etc. Suitable for continuous service at 65°C (150°F.), although substantially higher temperatures may be tolerated for short durations. Cured adhesive resists moisture, acids, alkalis, corrosive salts, petroleum solvents, lubrication oils, alcohols, ketones and jet fuels.

Adhesive Strength, Shear	10 MPa	Heat Distortion Point.	42°C (107°F)
Tensile Strength	55 MPa	Water Absorption, 24 hrs	0.1%
Compressive Strength	110 MPa	Shore D Hardness	85
Shrinkage	0.2%		

Dielectric Strength, 25°C (77°F)...500 V/Mil (20 Mils Thick)

Dielectric Constant, 25°C (77°F)...3.3 @ 10<sup>3</sup> Hz

Volume Resistivity, 25°C (77°F)...2 x 10<sup>15</sup> ohm/cm

**SURFACE PREPARATION:** All bonding surfaces must be clean and free of oils and grease to obtain maximum adhesion. Degreasing, solvent wipe, or chemical cleaning is recommended for metals. For plastics ultra-sonic cleaning with denatured alcohol is usually adequate. Any release agent deposited on the plastic during the manufacturing process must be removed, a plasma etch may be effective. In a limited number of cases, the plastic surface should be roughened. In a few cases, low density PE, untreated PTFE, PET, highly flexible vinyl, etc., no satisfactory surface preparation has been found. Some nylons require a phenol etch and styrenes should be struck with solvent. Linear polyethylene should be passed over an oxidizing flame until the surface sheen is removed. Please refer to TI-3000 "Surface Preparation Recommendations" bulletin if unfamiliar with accepted techniques.

**Note:** Tubes as shipped are hermetically sealed to offer long storage life. Cut away seal uniformly around inside periphery of orifice. This orifice meters the correct amount when equal lengths are squeezed out. Reseal with plastic screw caps.

## *EpoxyLite 223*

### **MIXING PROCEDURE:**

- A.** Mix on any flat surface that may be discarded.
- B.** Squeeze one length of EpoxyLite resin on mixing surface. Use a uniform pressure to secure an even bead. "Stretching" or "bulging" will unbalance curing ratio.
- C.** Close by and parallel to the Resin squeeze an equal length bead of Hardener. for even cut-off tilt tube orifice against mixing surface.
- D.** Mix thoroughly with stirrer (2 TO 3 minutes).

**NOTE:** #223 is also offered in bulk. It is packaged as Parts A & B in pints, quarts, gallons, and 5-gallon units, pre-weighed and ready to use.

**BULK MIXING RATIO:** Use one (1) part of B per one (1) Part of A by volume when mixing less than packaged amounts.

**APPLICATION METHOD:** Spatula or wooden stirrer; apply mixed paste to parts and position them. Contact pressure is adequate. #223 may also be used in connection with glass cloth to build high strength, cure-in-place laminates

**HANDLING PRECAUTIONS:** Avoid contact with skin. Use under conditions of good ventilation. Use soap and water after skin contact. READ MSDS and KEEP AWAY FROM CHILDREN. If unfamiliar with handling epoxy systems, please see bulletin TI-100 "Handling Precautions for Epoxy Resins".

**POT LIFE & CURE CYCLE:** Pot life is 10 minutes at 25°C (77°F) in 1/2 lb. mass; 15 minutes at 25°C (77°F) in 100 gram mass. Applied adhesive will set in 60 minutes at 27°C (80°F). Cure overnight. Heating will speed cure.

**STORAGE LIFE:** EpoxyLite squeeze tube Resin and Hardener should be stored with tubes tightly closed in a cool place, preferably in the white board box for preservation of instructions. Shelf life of properly stored formulations is at least one year.

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# EPOXYLITE®

## **THE P.D. GEORGE COMPANY**

5200 North Second Street

St. Louis, MO 63147

Telephone: (314) 621-5700

Fax: (314) 436-1030

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