

# M-BOND 610 USE INSTRUCTIONS



SPI Supplies  
206 Garfield Avenue,  
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## M-Bond™ 610 Adhesive System

### Surface Preparation Instructions

Metal surface cleaning procedures usually involve vigorous solvent degreasing. We have found the SPI Carbon Paint Thinner to be quite effective in terms of surface cleaning so long as the surface being cleaned does is inert for organic solvents. Surfaces should be free from pits and irregularities for best adhesion and the area to be cleaned should be larger than that to be occupied by the M-Bond 610 (and if applicable, the gage).

### Handling Precautions

Epoxy resins, epoxy-phenolic resins and their associated hardeners may cause dermatitis or other allergic reactions, particularly in persons who have become sensitized to their presence. They are, at all times, cautioned to: (1) avoid contact with either the "curing agent" or the "adhesive"; (2) avoid prolonged or repeated breathing of the vapors; and (3) use these materials only in well-ventilated areas. If skin contamination occurs, thoroughly wash the contaminated area with soap and water immediately. In case of eye contact, flush immediately and secure medical attention. Rubber gloves and aprons are recommended, and care should be taken not to contaminate working surfaces, tools, container handles, etc. Spills should be cleaned up immediately.

### Mixing Instructions

M-Bond 610 is a two component system and must be mixed as follow:

- 1) ***Resin and curing agent bottles must*** be at ***room temperature*** before opening!
- 2) Using the disposable plastic funnel, empty contents of bottle labeled "curing Agent" into bottle labeled "Adhesive". Discard funnel when finished.
- 3) After tightening the brush applicator cap (included separately), thoroughly mix the contents of this "Adhesive" bottle by vigorously shaking it for at 10 seconds.
- 4) Mark bottle with date mixed in space provided on the label. Allow this freshly mixed adhesive to stand for at least one hour before using.

## Shelf and Pot Life

At room temperature, M-bond 610 has a minimum useful storage life of about 9 months from date of manufacture and when stored unmixed at room temperature of 24C (75F). Storage under refrigeration at 40 ° F (5 °C) will extend the storage life considerably, reportedly to roughly 15 months.

Once opened and mixed, M-Bond 610 will have a room temperature pot life of six weeks. The period of adhesive usefulness can usually be doubled to about 12 weeks by refrigeration at +40 ° F (+5 °C). ***Never open a refrigerated bottle until it has reached room temperature!***

## Elongation Capabilities

### **M-Bond™ 610:**

- 1% at -269° C (-452° F)
- 3% from room temperature to 260° C (500° F)

When properly cured, this two part adhesive is useful for temperatures ranging from deep cryogenic, -269° C (-452° F) (4° K) to 370° C (700° F) for short periods, and -269° C (-452° F) (4° K) to 260° C (500° F) for long periods. Note that for transducer applications, the recommended temperature upper limit is 230° C (450° F).