VARIAN

P102144 - Torr Seal Vacuum Equipment High Vaccum Epoxy, Good to 1x10-9 Torr - 82 grams of Resin, 36 grams of Hardener

P102619 - Torr Seal Mixing System, High Vacuum Epoxy, Good to 1x10-9 Torr - 2 oz (56.7 ml)

P102631 - Torr Seal Mixing System Replacement Mixers - Six to a Package

P103240 - Torr Seal Mixing Cartidge 2 oz. & Three Mixers, High Vac Epoxy, Good to 1x10-9 Torr - 2 oz (56.7 ml)

Directions for Use

Mixing

1. **When mixing by hand**, combine Part A (Resin) and Part B (Hardener) in equal parts for correct ratio. Mix thoroughly until the color and consistency are uniform. Tube Kits have been designed so that *squeezing equal length beads of part A and part B will give the proper ratio.*

2. Mixing the adhesive just prior to use is recommended. The temperature of the separate components prior to mixing is not critical, but they should be close to room temperature.

3. Heat buildup during and after mixing is normal. To reduce the likelihood of exothermic reaction or excessive heat buildup, mix less than 900 grams (31.75 oz) at a time. Mixing smaller amounts will minimize heat buildup.

Applying

1. Bonding surfaces should be clean, dry, and free of contamination.

2. Once the adhesive is applied, the bonded parts should be held in contact until the part has developed handling strength (3 to 4 hours @ 77° F (25° C)) note: this can vary with different bond configurations. It is not necessary to clamp the parts unless movement during cure is likely.

Cure

1. Hardening time 1 to 2 hours @ 77°F (25° C.) Can also be fully cured with heat such as; 2 hours at a maximum temperature of 140°F (60° C). Complete cure is obtained after 72 hours @ 77°F (25° C.)

2. After 24 hours, approximately 90% of full cure properties are attained at room temperature.

3. This product can also be cured for 1 hour @ 176°F (80° C) or 20 to 30 minutes @ 248°F (120° C.)

4. Heat cures can be modified to achieve a desired degree of cure from handling strength to full cure.

Clean up

1. It is important to clean up excess adhesive from the work area and application equipment before it hardens.

2. Denatured alcohol and many common industrial solvents are suitable for removing uncured adhesive.

Note On Hardening

Epoxy resins are prone to solidification or crystallization. If this occurs, the product can easily be returned to a liquid state by immersing the tube in warm water, approximately 100° F (38° C) for 30 minutes. Ensure all material is melted prior to use; gently re-warm if necessary. Allow the resin component to return to room temperature prior to mixing with the hardener. This warming process will not affect performance or product properties.