

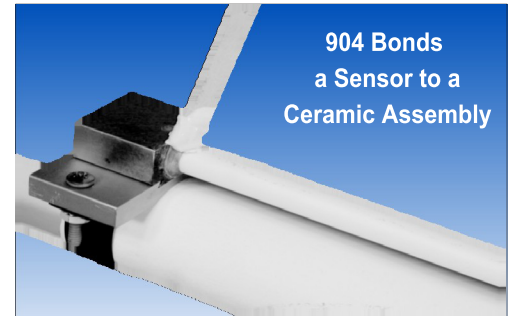
CERAMIC ADHESIVES

Criteria for selection of ceramic adhesives:

- (A) Match the thermal expansion of the components to be bonded with that of the adhesive.
- (B) Check for the maximum temperature, electrical properties and the bond strength required.
- (C) Check the Moisture or Humidity requirements.

NOTE: For Bonding Materials With Different Thermal Expansions select an adhesive that has a expansion coefficient equal to the average expansion of the materials to be bonded.

Consult your Cotronics' catalog for complete details. Selector Kits are available to assist in product evaluation. We recommend that a comparative evaluation is made before a final manufacturing selection.



INSTRUCTIONS

1. FOR NON-POROUS MATERIALS:

- 1. Clean surfaces. Remove old coating, adhesive, dirt, grease, etc.
- 2. De-grease with solvent such as **Resbond 105 RS** and dry thoroughly.

POROUS MATERIALS clean surface of loose dirt and dust. Moisten the surface to be bonded with a solution of 50% ceramic thinner and 50% clear water.

(Note: Use the thinner for the chosen adhesive system).

2. MIX ADHESIVE thoroughly prior to use, follow directions on product label.

Do not whip air into the mix.

NOTE: For two component systems, mix the powder and activator according to the weight ratio on the label.

3. APPLY ADHESIVE by spatula, brush or dipping. Completely wet the surfaces.

4. IMMEDIATELY press surfaces together. If necessary clamp or fix materials to maintain uniform distance while curing. Typically a gap of 0.01" to 0.02" is recommended. Excess adhesive can be removed with a damp rag. Discard excess materials.

CURING

- 1. Let joint air set 1- 4 hours.
- 2. Cure a minimum of 2 hours at 200°F (90°C).
- 3. Avoid excessively fast heating. It will cause adhesive to bubble and form a weak bond.

POST CURE

- 4. To Develop maximum strength, solvent and moisture resistance. Post cure for 1 hour at 250°F (120°C) followed by 1 hour at 600°F - 700°F.
- 5. **NOTE:** Faster cures and use after room temperature cure may be possible with many of the COTRONICS SYSTEMS. Consult the product label for instructions. Bond testing with sample pieces for your specific applications recommended. **ALWAYS** Follow the specific recommendations shown on the product labels.
- 6. **POTTING APPLICATIONS:** For potting applications refer to the instructions for ceramic potting materials.
NOTE: these products will not out-gas after a complete cure.

COATING APPLICATION

One Component Systems may also be used for Ceramic Coatings.

- 1. To thin the adhesive use the thinner developed for use with each specific adhesive.
- 2. Thin approximately 5% from a solution made up of 50% ceramic thinner and 50% water.
- 3. Brush or Spray on a thin coat. Air dry coating. Re-apply. Repeat until desired thickness is obtained.
- 4. Follow cure instructions as required on the product label.



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