

# SPECIAL PURPOSE HI-TEMP ADHESIVES

## For Electronic and Metallurgical Applications

### 2500°F - RESBOND™ 905

#### Low Expansion Adhesive

Resbond™ 905 Quartz (fused silica) Adhesive was specially formulated for bonding low expansion and thermal shock resistant ceramics.

The thermal expansion of Resbond™ 905 closely matches the extremely low expansion of Quartz, Fused Silica, Corderite and Lithium-Alumina Ceramics.

These shock resistant ceramics can now be successfully bonded and used to 2500°F.

Replaces standard ceramic adhesives that may crack and weaken on thermal cycling.

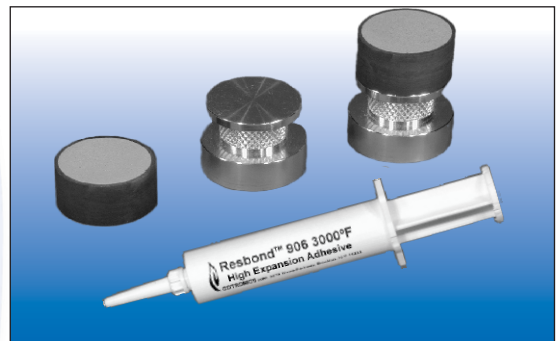
Just apply and let dry. Resbond™ 905 is resistant to most chemicals and solvents.

#### Users Report:

- Resbond™ 905 bonds and electrically insulates quartz light bulbs and fixtures.
- Resbond™ 905 bonds quartz to stainless steel to aid in processes designed to cool hot silicone.
- Resbond™ 905 successfully bonds colored glass panels to a halogen lamp, creating a crack resistant decorative lamp.



905 Bonds a High Performance Quartz Lamp



906 Bonds a Stainless Assembly

### 3000°F - RESBOND™ 906

#### High Expansion Adhesive

Resbond™ 906 Magnesia Based Adhesive was formulated for bonding high expansion materials for use to 3000°F.

Bonds to steel, stainless, aluminum, brass, copper, silver, nickel and other high expansion materials.

Resbond™ 906 will cure at room temperature to form a highly thermally conductive bond.

Strength and moisture resistance will be improved by a post cure at 600°F - 700°F.

Resbond™ 906 has excellent resistance to oxidizing and reducing atmospheres, most chemicals and solvents.

It is resistant to flame impingement and most liquid metals.

#### Users Report:

- 906 forms a thermally conductive and electrically insulating bond for Hi - Watt Density Heater.
- Coated Hi - Watt density heating coils before insertion into stainless steel tubes. Did not crack when exposed to vibration and high temperatures.
- Bonded re-crystalized alumina tubes to PTFE insulated cable for use at 700°F.

**Applications Include:** bonding high expansion materials, forms highly thermally conductive bonds, potting and encapsulating heating assemblies. etc.

Resbond™	905	906
Major Constituent	QUARTZ	MAGNESIA
Temperature Limit	2500°F	3000°F
Thermal Expansion (x 10 <sup>-6</sup> /°F)	0.30	7
Thermal Conductivity (BTU-in/Hr. Ft <sup>2</sup> °F)	10	40
Compressive Strength (psi)	3200	3000
Flexural Strength (psi)	2100	1500
Dielectric Strength (volts/mil.)	200	250
Volume Resistivity (ohm-cm)	10 <sup>11</sup>	10 <sup>9</sup>
Components	2	2
Mix Ratio	100:60	100:42
Color	White	White
Consistency	Paste	Paste

Cat. No.	Description	Price
Resbond™ 905-1	Pint	130.44
Resbond™ 905-2	Quart	227.69
Resbond™ 905T-1	Thinner - Pint	52.11
Resbond™ 906-1	Pint	130.44
Resbond™ 906-2	Quart	235.39
Resbond™ 906T-1	Thinner-Pint	52.11

**Production Pricing Is Available Upon Request**