SPECIAL PURPOSE HI-TEMP ADHESIVES

For Electronic and Metallurgical Applications

2500ºF - 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 2500ºF.

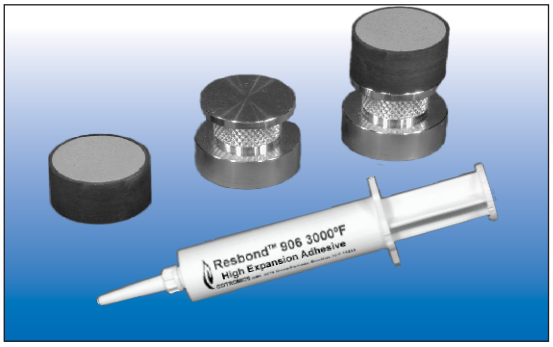
Replaces standard ceramic adhesives that may crack and weaken on thermal cycling.

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 Hgh Performance Quartz Lamp



906 Bonds a Stainless Assembly

3000ºF - RESBOND™ 906

High Expansion Adhesive

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

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 600ºF - 700ºF.

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 700ºF.

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

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

Cat. No. Description

Resbond™ 905-1 . . . . . Pint
Resbond™ 905-2 . . . . . Quart
Resbond™ 905T-1 . . . . . Thinner - Pint

Resbond™ 906-1 . . . . . Pint
Resbond™ 906-2 . . . . . Quart
Resbond™ 906T-1 . . . . . Thinner-Pint

Production Pricing Is Available Upon Request