

RESBOND 904 - 4000°F ZIRCONIA ADHESIVE

Extreme temperature adhesive provides 4000°F service surpassing the capabilities of most materials.

Resbond 904 is a smooth, creamy paste that is easily applied and air dried to form a hard surface.

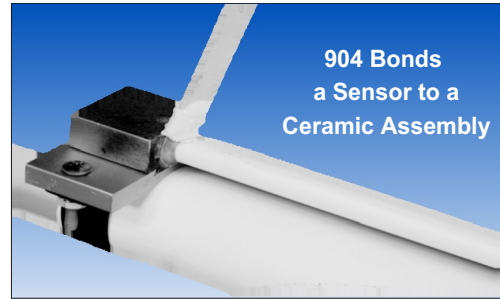
Resistant to molten metals, most chemicals and solvents oxidizing and reducing atmospheres, .

Use 904 Adhesive for bonding and forming electrical, oxidation, erosion and liquid metal resistant coatings for ceramics, graphite, and thermocouple tubes.

Users Report:

- Bonded exhaust lines to a Thermogravimetric Analyzer's reaction chamber and used at 3400°F under vacuum.
- Bonded Silica Cloth to furnace tubes for use at 2600°F in a Semi-Conductor's clean room.
- Coated Graphite Crucibles and successfully protected the crucibles from exposure to liquid zinc.
- Coated Aluminum Metal Panels on a Spacecraft and successfully protected the metal panels from Hi-Intensity X-Ray radiation.

Applications: Welding, brazing, bonding, electrical seals, thermocouple protection, instruments, high temperature facing for brick, electrical potting, liquid metal handling, etc.



Resbond	904	989
Continuous Use Temp. °F	4000	3000
Base	ZrO ₂	Al ₂ O ₃
Compressive Strength (psi)	6000	3000
Flexural Strength (psi)	3000	1100
Thermal Expansion (x 10 ⁻⁶ /°F)	4.1	4.5
Thermal Conductivity*	10	15
Dielectric Strength (volts/mil)	250	200
Volume Resistivity (ohm cm)	10 ⁸	10 ⁸
Components	1	1
Color	Tan	White
Consistency	Paste	Paste

*BTU in / Hr °F Ft²

RESBOND 989 - 3000°F ALUMINA ADHESIVE

3000°F Resbond 989 is a high purity, alumina based, general purpose, one component, room temperature curing adhesive.

Bonds to ceramics, graphite, metals, and glass.

Can be dispensed automatically for high speed production applications.

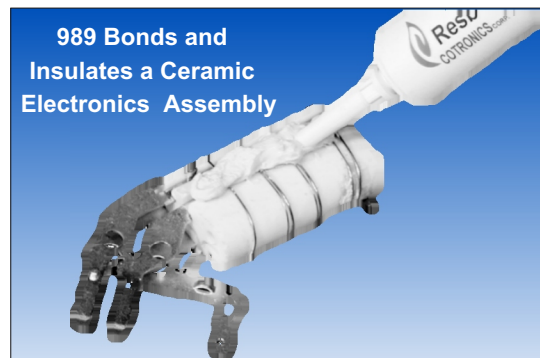
RESBOND 989 offers high bond strength, solvent and electrical resistance.

Just apply and air dry. Curing may be accelerated with mild heat.

Users Report:

- Bonds Silicon Carbide nozzles into alumina sleeving in a high temperature instrument chamber.
- Bonds Nickel pins, measuring 0.03" dia., into 0.04" holes in an aluminum nitride ceramic and held these parts together during immersion in both liquid Nitrogen and into a furnace at 900 °C.
- Bonds Kanthal to Mullite tubes, forming inexpensive custom sized and durable hi-temp. heating elements.

Applications: Bonds alumina, metals, ceramics, graphite, and glass in electrical components, appliances, instruments, etc.



Availability:

Cat Number	Description	Size
Resbond 904-1	... 4000°F Adhesive.	 Pint
Resbond 904-2	... 4000°F Adhesive.	 Quart
Resbond 904-4	... Thinner for 904 ..	 Pint
Resbond 989-1	... 3000°F Adhesive .	 Quart
Resbond 989-2	... 3000°F Adhesive .	 Gallon
Resbond 989T-1	.. Thinner for 989 .	 Pint



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