

## HI-TEMP ADHESIVES

### Single Component - Alumina

#### 3000°F - RESBOND 989

##### Alumina Adhesive

**Resbond 989** is a one component high purity, 3000°F Alumina based, general purpose adhesive.

It has a smooth creamy consistency and cures at room temperature to form strong bonds to ceramics, graphite, metals and glass.

Resbond 989 is resistant to oxidation, electricity, molten metals, most chemicals and solvents.

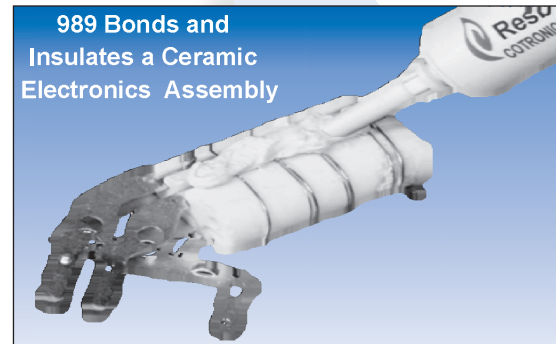
Easy to use, Just apply and air dry.

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. These parts were quenched (from 900°C) in liquid Nitrogen without failure.
- Bonds Kanthal to Mullite tubes, forming inexpensive custom sized and durable high temp. Heating elements.

**Applications Include:** bonding alumina, metals, ceramics, graphite, electrical components, adhering thermocouples, heat sensors, and critical electronic components, in appliances, instruments, etc.



#### 3000°F - RESBOND 989FS

##### Fast Set Alumina Adhesive

**New, 989 Fast Set** is specially formulated for applications requiring a fast setting, single component, alumina adhesive.

Now, a free flowing formulation that is ideal for use in automatic dispensing equipment. It is precisely dispensed through fine needles with out clogging or mess.

Resbond 989FS cures at room temp. or in 5 minutes at 200°F.

It is the ideal choice for high speed production applications where automation is required.

#### 3000°F - RESBOND 989F

##### Pre-Nano Adhesive

The Alumina used to formulate Resbond 989F particle size has been reduced to 600 nms.

**Resbond 989F** combines this ultra-fine Alumina with special high temperature colloidal ceramic binders to create an adhesive ideal for a new generation of applications.

Resbond 989F can be used in the finest dispensers. No clogs. No mess. It is an ideal choice for high temp. production applications.

Now, there are no limits to applications requiring a high temperature alumina adhesive and the ability to bond super fine electric components, bundles of fiber optics filaments,

Resbond	989	989FS	989F
Continuous Use Temp. °F	3000	3000	3000
Base	Al <sub>2</sub> O <sub>3</sub>	Al <sub>2</sub> O <sub>3</sub>	Al <sub>2</sub> O <sub>3</sub>
Feature	General Purpose	Fast Set	0.6 Micron Ultra Fine
Compressive Strength (psi)	3000	3500	2800
Flexural Strength (psi)	1100	1250	950
Thermal Expansion (x 10 <sup>-6</sup> /°F)	4.5	4.5	4.5
Thermal Cond. (BTU in/hr. in ft <sup>2</sup> )	15	15	12
Dielectric Strength (volts/mil)	200	200	200
Volume Resistivity (ohm - cm)	10 <sup>8</sup>	10 <sup>8</sup>	10 <sup>8</sup>
Components	1	1	1
Color	White	White	White
Consistency	Paint	Paint	Cream
Cure R.T. (Hours)	2 - 4	½ - 2	2 - 4
Cure 200°F (Hours)	½ - 1	5 mins.	1 - 2

##### Availability

Resbond 989-1 . . . . . Quart

Resbond 989-2 . . . . . Gallon

Resbond 989T-1 . . . . . Thinner (Pint)

##### NEW 989 FAST SET

Resbond 989FS-1 . . . . . Pint

Resbond 989FS-2 . . . . . Quart

##### NEW 989 ULTRA FINE

Resbond 989F-1 . . . . . Pint

Resbond 989F-2 . . . . . Quart

**Production Pricing is Available upon Request**