



# Inland, Inc.

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## INNERBOND C-800 HIGH HEAT RTV ADHESIVE SEALANT

Innerbond C-800 High Heat Adhesive / Sealant is a one-component, ready-to-use, non-slumping, non-sagging 100% silicone material that cures to a tough, rubbery solid when exposed to atmospheric moisture. (Room temperature vulcanizing). Innerbond C-800 was formulated to perform at temperatures up to 500°F (260°C) continuously and 600°F (315°C) for intermittent exposure.

Innerbond C-800 High Heat Adhesive / Sealant is characterized by the following advantages:

- Resistance to high temperatures - will retain electrical and physical properties for extended periods at temperatures to 500°F (260°C) and for intermittent exposure to 600°F (315°C).
- One-component product - no mixing or catalyzing required.
- Thixotropic paste consistency - products will flow only with external pressure. Can be applied to a vertical, horizontal and overhead surface without sagging, slumping or running off.
- Excellent adhesion properties - will bond to many surfaces without the use of primers.
- Weatherability and ozone resistance - excellent resistance to weathering, vibration, moisture and ozone.
- Electrical insulation properties - can be used for electrical insulation.

### APPLICATIONS

The paste consistency of Innerbond C-800 High Heat Adhesive / Sealant makes it ideally suited for vertical, horizontal and overhead applications, provided sufficient surface contact is maintained. It has been formulated to seal fireplace glass doors to the brick for an airtight seal. Can also be used for bonding, sealing and joining metal and plastics, electrical insulation, protective coatings, formed-in-place gaskets where the applications require high temperature performance.

### TYPICAL PROPERTIES

UNCURED			
Color	Black	Consistency	paste
Specific Gravity at 77°F (25°)	1.06	Tack Free Time, at (77°F (25°C) 50% RH, min	10 - 20
Application Rate (0.125 in orifice at 90 psi)	100 gm/min		
CURED 96 Hours at 77°F (25°C) 50% RH			
Hardness, Shore A	25	Tensile Strength	295 psi
Elongation	450%	Volume Resistivity, ohm, cm	10 <sup>14</sup>
Dielectric strength, kv/mm	16	Dielectric constant at 60 HZ	2.8
Dissipation factor at 60 HZ	0.0028	Brittle Point	-80°F
Thermal conductivity, cal/sec/cm <sup>2</sup> , °C/cm	0.008		

### USES

Innerbond C-800 High Heat RTV Adhesive / Sealant adheres to many clean surfaces without the use of primers. These surfaces include glass, ceramic, and many metals, some rigid plastics and silicone rubber. C-800 High Heat Adhesive / Sealant will also produce fair bonds to some flexible plastics which do not contain migratory plasticizers, and to many organic rubber materials. For any of the applications above, an evaluation should be made to determine bond strength.

In order to prepare surfaces for maximum adhesion, surfaces should be cleaned with suitable solvents such as MEK (methyl ethyl ketone), naphtha, or 1,1,1-trichloroethane to remove all grease, dirt and oil. All solvents must be wiped from surfaces before sealant is applied. If solvents are used as described above, please follow solvent manufacturer's safety procedures for their use.

### **CURE TIME**

Cure time is affected by relative humidity, degree of confinement and cross-sectional thickness of the sealant. The cure progresses inward from the surface. At 77°F (25°C) and 50% relative humidity, the sealant will form a tack free skin with 10-20 minutes; tooling is not practical after the skin begins to form and should be completed within 5 to 10 minutes of application.

Sections up to 1/8" thick become rubbery solids in approximately 24 hours at room temperature and 50% relative humidity.

As C-800 High Heat Adhesive / Sealant cures, acetic acid vapors are released from the surface of the sealant. The acetic acid odor will disappear when cure is complete.

### **BONDING**

In addition to the effects of temperature and humidity on cure time, maximum development of bond strength will depend on joint configuration, sealant thickness, degree of confinement and the porosity of the substrate.

Usually, bond strength will develop sufficiently within 12 to 24 hours to permit handling. Only low stress levels should be applied to the joint until full adhesion strength is developed. Certain substrates require the use of a primer to obtain optimum bond adhesion.

### **CLEANUP**

Solvent such as methyl ethyl ketone (MEK), naphtha, and 1,1,1-trichloroethane can be used to remove uncured materials. Cured silicone is difficult to remove without damaging or altering the surface if misapplied.

### **STORAGE AND HANDLING**

When stored in the original, unopened container at temperatures less than 90°F, Innerbond C-800 High Heat RTV Adhesive / Sealant offers a useful life of one year. After the container has been opened, a plug of cured material may form in the nozzle or tube tip during storage. This is easily removed and does not effect the remaining contents.

### **NOTE**

The information and data contained herein are believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of use. Since Inland, Inc. cannot know all of the uses to which its products may be put or the conditions of use, it makes no warranties concerning the fitness or suitability of its products for a particular use or purpose.

Thorough testing of our product on any proposed use should be conducted prior to each application. It is the responsibility of the consumer to evaluate the performance of our product in each given application. Likewise, if the manner in which our products are used requires governmental approval or clearance, it is the user's responsibility to obtain it.

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