



# SILICA ADHESIVE

## Type SILBOND LE

### GENERAL INFORMATION

**ZRCI SILBOND LE is a Fast Setting, Low Expansion Silica Adhesive** that is ideal for bonding applications up to 1200°C( 2192°F). SILBOND LE was originally formulated to Bond ZRCI low expansion composites to each other. It is also ideal for bonding and insulating Ceramics, Glass and Metal, such as quartz fixtures, bulbs, halogen lamps, thermocouples, heat sensors, fiber cables, and glassware. It is formulated with special catalytic activators to provide a high speed, quartz adhesive for many production applications.

Its easy to use, just mix and apply. Cures in 5 minutes at 175°F or in 4-8 hours at room temperature. **ZRCI SILBOND LE** has excellent adhesion to Quartz, Fused Silica, Corderite, Lithium-Alumina, Ceramics, Glassware or any other low expansion material. It offers excellent electrical and chemical resistance and is immune from cracking in the most difficult thermal shock applications.

### CHARACTERISTICS & PROPERTIES

Composition,	SiO <sub>2</sub>
Density (dried), g/cc(pcf)	1.6(100)
Maximum Use Temp. *,C(F)	1200(2192)
Thermal Expansion (x10 <sup>-6</sup> /°F)	0.3
Modulus of Rupture**, MPa(psi)	10(1450)
Compressive Strength**, MPa (psi)	29(4200)
Thermal Conductivity**, W/m K(BTU/hr. ft °F/in) 500°C(932°F)	0.53(3.8)
Dielectric Strength (volts/mil)	125
Volume Resistivity (ohm-cm)	10 <sup>8</sup>
Components	2
Color	White
Consistency	Paste
Cure Temperature	Room Temp

\* Maximum use temperature is dependent on variables such as stresses, both thermal and mechanical, and the chemical environment that the material experiences.

### APPLICATION INSTRUCTIONS

Mix 100 parts SILBOND LE Powder with 40-50 parts activator by weight. Stir thoroughly. Apply to clean surface.

### AVAILABILITY

LS60-A	SILBOND LE, 1 Pint
LS61-A	SILBOND LE, 1 Quart

### ZIRCAR Refractory Composites, Inc.

P.O. BOX 489, FLORIDA, NY 10921-0489  
Tele: (845) 651-2200, Fax: (845) 651-1515  
e-mail: sales@zrci.com  
Home page: <http://www.zrci.com>

### Technical Data

Bulletin No. ZRCI-910  
November 2011