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# RSLE-501

## ZIRCAR

This silica reinforced composite is in a cylindrical form. It has outstanding resistance due to its high endurance. Since it has a very low coefficient of expansion, this material offers superior resistance to thermal shock in an oxidized atmosphere.



### APPLICATIONS

The RSLE-501 was designed for use as durable insulators in induction heat treating applications. It is also used in zones where temperatures may rapidly.

### SPECIFICATIONS

#### Properties & characteristics

<b>Temperature</b>	<b>1 200°C (2 192°F)</b>
<b>Nominal composition, wt %</b>	
Al <sub>2</sub> O <sub>3</sub>	65
SiO <sub>2</sub>	99.7
Other oxides	< 0.3
Organics	0
Density, g/cc (pcf)	2.1 (90)
Porosity, %	31
Color	White
Hardness, Durometer «D»	87
Charpy impact strength, ft-lb	0.8
<b>Thermal Expansion Coeff.</b>	
Room Temp. to 800°C (1472°F)	0.3 x 10 <sup>-6</sup> /°C

**Compressive Strength\*\*, Mpa (psi)**

At 2.7% consolidation	48 (7000)
Modulus of rupture**, Mpa (psi)	30 (4300)
<b>Thermal Conductivity** ASTM C-1113 - W/m°K (BT/hr ft² °F/in)</b>	
200°C (392°F)	0.55 (3.8)
400°C (752°F)	0.64 (4.4)
600°C (1112°F)	0.61 (4.2)
800°C (1472°F)	0.67 (4.6)
1000°C (1832°F)	0.75 (5.2)
Volume Resistivity, ohm-cm ASTM D-257-93	7.5 x 10?
<b>Dielectrical Strength, volts/mil</b>	
ASTM D-149-95	43
<b>Linear shrinkage, % ***</b>	
24 hrs to 800°C (1472°F)	
• Length	0.1
• Width	0.1
• Thickness	0
24 hrs to 1100°C (2012°F)	
• Length	4.9
• Width	4.9
• Thickness	7.9

**N.B.** The information, details and values indicated are to the best of our knowledge. We recommend to conduct tests according to local conditions. The data is subject to some variations without notice.