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It is a low expansion high strength reinforced silica matrix composite. It is entirely organic free and contains no refractory ceramic fiber. The RSLE-57 can be machined to precision tolerances with conventional tooling.



APPLICATIONS

Often used in zones where the temperatues vary rapidly, this material has a very low coefficient of expansion and provides outstanding resistance to thermal chock in an oxidized atmosphere. It is used in induction presses, and since the molten aluminum does not adhere to the RSLE-57, it is used for many applications involving this material. It also resists corrosion, is an excellent electrical insulator and has a low thermal conductivity.

SPECIFICATIONS

Properties & characteristics

Temperature	1 200°C (2 192°F)
Thermal Expansion Coeff.	
Room Temp. to 800°C (1472°F)	0.3 x 10 ⁻ 6/°C
Nominal composition, wt %	
SiO2	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

Compressive Strength, Mpa (psi)

At 2.7% consolidation	48 (7000)
Modulus of rupture, Mpa (psi)	30 (4300)
Thermal Conductivity, ASTM C-1113 - W/m°K (BT/hr ft² °F/in)	
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?
Dielectrical Strength, volts/mil	
ASTM D-149-95	43
Linear shrinkage, %	
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 know ledge. We recommend to conduct tests according to local conditions. The data is subject to some variations w ithout notice.