

# Silicon Carbide Products

## SCProbond™-R

### Reaction Bonded Silicon Carbide

(Typical abbreviations: RBSC, RBSiC, SiSiC)

Extreme abrasive wear, corrosion,  
high temperature and  
thermal shock applications

#### Applications

- Cyclone/Hydrocyclone apexes
- Liners
- Spray Nozzles
- Radiant heating components
- Sleeve bearings
- Tight tolerance machined wear components

#### Forming Methods

- Thixotropic (vibration cast)
- Slip cast

#### Size Limitations

- Maximum diameter/Maximum length: 14.5" x 14.5"  
(368mm x 368mm)
- Standard tolerance: +/- 0.040" (1mm)  
or 0.5% dimension (whichever is greater)



Property	Units	SCProbond™ R-SC	SCProbond™ R-TC
		Value	Value
Density	g/cc	3.0	3.0
	lb/ft <sup>3</sup>	187	187
Apparent porosity	%	0	0
Modulus of rupture 3 point loading	MPa	251	74.3
	psi	36,400	10,779
Coefficient of thermal expansion (@ 1200° C)	x10 <sup>-6</sup> /°C	4.63	1.15
	x10 <sup>-6</sup> /°F	2.57	0.64
Abrasion loss (volumetric) C704 ASTM	cc	0.84	1.01
Maximum safe operating temperature	°C	1350	1350
	°F	2462	2462
Wall thickness range	Uniform wall*	0.125"-0.400" (3.175mm-10.16mm)	
	Non-uniform wall*		0.3"-2.00" (7.62mm-50.8mm)

This information is for your consideration and verification and should not be considered a warranty or representation for which we assume legal responsibility.

\*Additional machining may alter this property



361 Daniel Zenker Drive • Horseheads, NY 14845 USA  
Phone: 607-562-8599 • Fax: 607-562-7585  
www.scpbond.com • E-mail: scp@scpbond.com