

Norfrax[®] RB is Saint Gobains' high performance, fine grain reaction-bonded silicon infiltrated silicon carbide (RBSiC) material. This premium silicon carbide material is engineered to resist oxidation and thermal shock while providing excellent structural support and wear resistance. Norfrax[®] RB provides a viable solution to many of heavy industries' most difficult wear, corrosion, and oxidation applications compared to traditional silicon carbides and other ceramic materials, which provide inferior wear protection.

Norfrax[®] RB is formed through a proprietary casting method and firing of the green body at a very high temperature in a protective atmosphere. Large and complex shapes are entirely practical, and in every case, you can depend on dimensional tolerances well within design specifications.

To learn more about our high performance Norfrax[®] RB family of products, please contact your Saint-Gobain representative.

Properties		SI Units	English Units
Chemical Analysis (RBSiC)			
Silicon Carbide		87%	87%
Silicon		12%	12%
Oxides		1%	1%
Bulk Density		3.05 g/cm ³	190 lbs./ft. ³
Young's Modulus (MoE)	20 °C	375 GPa	53 × 10 ⁶ psi
Vickers Hardness	20 °C	22 GPa	3.19 × 10 ⁶ psi
Modulus of Rupture	RT	179 MPa	26 × 10 ³ psi
	1250 °C	214 MPa	31 × 10 ³ psi
Thermal Conductivity,	200 °C	125.0 W/m·K	866 (BTU·in)/(hr·ft ² ·°F)
	300 °C	99.1 W/m·K	687 (BTU·in)/(hr·ft ² ·°F)
	600 °C	57.8 W/m·K	400 (BTU·in)/(hr·ft ² ·°F)
	900 °C	40.0 W/m·K	277 (BTU·in)/(hr·ft ² ·°F)
	1200 °C	36.4 W/m·K	252 (BTU·in)/(hr·ft ² ·°F)
Thermal Expansion	30 °C—1500 °C	4.3 × 10 ⁻⁶ /°C	2.4 × 10 ⁻⁶ /°F
Maximum Use Temperature		1,350 °C	2,460 °F
Apparent Porosity		0%	0%
Specific Heat	RT	682 kJ/(kg·°C)	162 BTU/(lb·°F)

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PERFORMANCE CERAMICS & REFRACTORIES

