

# MATERIAL PROPERTIES

## Carbofrax<sup>®</sup> 50 CK

Carbofrax<sup>®</sup> 50 CK is Saint-Gobain's silicon carbide based trowelable, wearing compound that is used to provide abrasion resistance in low and high temperature applications where traditional refractory brick are not feasible or cost effective. This trowelable compound offers the installer the ability to form an abrasion resistant lining to combat abrasion as well as offer good thermal shock protection.

Property		Standard	SI Units
Chemical Analysis		X-Ray Defraction	
Silicon Carbide			58%
Other			42%
Density (400° C)		ASTM C862/C20	2.45 g/cm <sup>3</sup>
Modulus of Rupture After 1 Day	RT	ASTM C133	8.5 MPa
Modulus of Rupture After 1 Day	RT	ASTM C133	11.2 MPa
Setting Time			60 - 120 Minutes
Moisture Content (Water)			9% - 12%
Maximum Use Temperature			500° C
Abrasion Resistance After 1 Day	RT	ASTM C704	9.0 cm <sup>3</sup>
Abrasion Resistance After 7 Day	RT	ASTM C704	8.5 cm <sup>3</sup>
Abrasion Resistance		DIN 52108	0.8 cm <sup>3</sup> /50cm <sup>2</sup>
Shelf Life			180 Days

### Installation Recommendations:

1. Store material in moisture free area prior to use.
2. Always use safety glasses and appropriate PPE when handling the castable.
3. SGC recommends the use of vertical or planetary mixers suitable for this castable.

### Installation Procedures:

1. Add the castable into the mixer.
2. Mix the dry material for 1 to 2 minutes.
3. Add 9% to 12% potable (recommended) water until obtaining the adequate workability for the desired application.
4. Mix the wetted material for 4 to 7 minutes (depending on the efficiency of the mixer).
5. The material is to be trowelled onto an expanded metal mesh insuring that the metal mesh is 100% filled.
6. Carbofrax to be applied to a thickness compatible with the project requirements. SGC recommends a minimum thickness of 1" (25mm)

### Drying Procedures:

1. 24 hours of air setting prior to equipment startup.

Coverage at 1"(25mm) thick/ 50lb(25kg) bag  
3.52 ft<sup>2</sup> (0.3M<sup>2</sup>)

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