

MATERIAL PROPERTIES

Alfrax[®] 50 CK

Alfrax[®] 50 CK is Saint-Gobain's alumina based trowelable, wearing compound that is used to provide abrasion resistance in low and high temperature applications where traditional tiling is not feasible or cost effective. This trowelable compound offers the installer the ability to form an abrasion resistant lining to combat erosion as well as offer good thermal shock protection.

Advantages to Using Alfrax 50CK

- One part ready mixed compound with steel fibers.
- Easy to install.
- Working life of 20 to 30 minutes.
- Can be formed into complex shapes and will provide a lining without any joints or seams.
- Lining thickness can range from 15mm to 50mm.
- 12 month shelf life if stored in a cool, dry place.
- Versatile in applications up to 500°C
- Provides adequate lining protection that can be applied during quick turnarounds or short outage periods.

Property		Standard	SI Units
Chemical Analysis		X-Ray Defraction	
Alumina Oxide			57%
Other			43%
Density (400° C)		ASTM C862/C20	2.80 g/cm ³
Modulus of Rupture After 1 Day	RT	ASTM C133	8.0 MPa
Modulus of Rupture After 1 Day	RT	ASTM C133	7.5 MPa
Setting Time			1 to 1.5 Hours
Moisture Content (Water)			7.5% - 10.5%
Maximum Use Temperature			500° C
Abrasion Resistance After 1 Day	RT	ASTM C704	8.5 cm ³
Abrasion Resistance After 7 Day	RT	ASTM C704	8.0 cm ³
Abrasion Resistance		DIN 52108	0.8 cm ³ /50cm ²
Shelf Life			12 Months

Installation Recommendations:

1. Store material in moisture free area prior to use.
2. Always use safety glasses and appropriate PPE when handling the trowelable material.
3. SGC recommends the use of a "Staring type" paddle mixer or a planetary mixer suitable for this trowelable.

Installation Procedures:

1. Add the trowelable into the mixer.
2. Mix the dry material for 1 to 2 minutes.
3. Add 7.5% to 10.5% 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. Install suitable metal mesh / expanded metal by welding onto the surface to be lined.
6. The material is to be trowelled onto an expanded metal mesh insuring that the metal mesh is 100% filled.
7. Alfrax to be applied to a thickness compatible with the project requirements. SGC recommends a minimum thickness of 5/8" (15mm) and smooth to finish.

Drying Procedures:

1. 12 hours of air setting prior to equipment startup.

Coverage at 1"(25mm) thick/ 50lb(25kg) bag
3.52 ft² (0.3M²)

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