

# CERAMITE T

## BAUXITE AND SILICON CARBIDE BASED TROWELLABLE REFRACTORY

Ceramite® T is a trowellable refractory blend consisting mostly of bauxite and silicon carbide. The formulation aggregates have a 4 millimetre (0.16 inch) maximum grain and the installed material supports a maximum service temperature up to 1000°C (1832°F).

This material is extremely wear resistant, has good thermal and electrical insulating properties, and is widely used in the aluminium, ferroalloys, mining, cement and steel industries. It has outperformed special steels, cast fused basalt, metal castings, rubber and other state-of-the-art wear resistant materials.

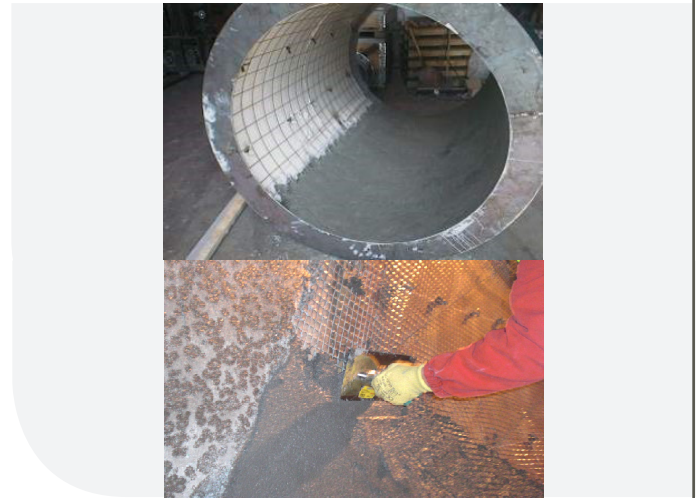
Ceramite T is easy to handle and install, has a low set time and a short drying cycle. It requires minimal water content, mixing time and retention anchoring. The low water content minimizes porosity and maximizes strength and abrasive wear resistance. Depending on the installation, a thinner layer of Ceramite T may be required, resulting in less material use. After application, no additional surface sealing is necessary.

### COMPOSITION

Material	Approximate Percentage of Weight
Al <sub>2</sub> O <sub>3</sub>	59%
SiC	17%
SiO <sub>2</sub>	10%
CaO	7%
Fe <sub>2</sub> O <sub>3</sub>	1%

### BENEFITS

- Minimal surface preparation
- High abrasion and corrosion resistance
- Can be trowelled overhead and applied to wet surfaces
- Simple anchoring system
- Water-based. No special chemicals or multi-liquid binders
- Monolithic structure eliminates joints
- Will conform to the required shape
- Can be applied in a thin layer: 1.25–4 centimetres (0.50–1.57 inches)
- Seamless linings and a monolithic work surface
- Can be field mixed with a paddle or double drill mixer
- High mechanical strength



### APPLICATIONS

- Coal and coke chutes
- Bunkers, blending bunkers, hoppers
- Internal pipe lining
- Joint seal between cast blocks
- Wall lining
- Cooler exhaust ducts
- Fan housings
- Cyclones
- Silos

### AVAILABILITY

- 25 kg (55 lb) bags
- Various other large bags

### STORAGE

- Store in dry and frost-free conditions, off the ground in closed bags
- Six month shelf life with proper storage
- Store at 15–25°C (59–77°F) for at least two days before use
- Pre-fired, cast Ceramite parts for hot applications must not be exposed to water or moisture. If exposed, a full sequence of preheating must be performed

### HEALTH AND SAFETY

Prior to use, refer to the product safety data sheet for proper handling and required personal protective equipment.

**PHYSICAL PROPERTIES**

Property	Value
Density—kg/m <sup>3</sup> (lb/ft <sup>3</sup> ) at 20°C (68°F) at 600°C (1112°F)	2700 (169) 2700 (169)
Cold Flexural Strength—MPa (psi) at 20°C (68°F) at 600°C (1112°F) at 850°C (1562°F) at 1000°C (1832°F)	17 (2470) 9 (1310) 9 (1310) 10 (1450)
Cold Compressive Strength—MPa (psi) at 20°C (68°F) at 600°C (1112°F) at 850°C (1562°F) at 1000°C (1832°F)	151 (21,900) 147 (21,300) 107 (15,500) 118 (17,100)
Abrasion*—cm <sup>3</sup> (in <sup>3</sup> ) at 20°C (68°F) at 600°C (1112°F)	1.6 (0.10) 1.5 (0.09)
Thermal Conductivity—W/m·K (BTU·in/ft <sup>2</sup> ·hr·°F) at 300°C (572°F) at 600°C (1112°F) at 900°C (1652°F)	3.2 (22.2) 2.8 (19.4) 2.9 (20.1)
Maximum Service Temperature	1000°C (1832°F)
Maximum Grain Size—mm (in)	4 (0.16)

Listed applications are suggested uses only.  
\* The abrasion test was performed per the DIN 52108 standard and pre-fired at the indicated temperature.

