CERAMITE SFW

FUSED SILICA REFRACTORY CASTINGS

Ceramite® SFW is a cast refractory containing white cement, and based on fused silica material. This refractory is naturally non-wetting and formulated especially for use with high silicon alloys, typically foundry alloys.

Products cast from this refractory are mainly used in the industry for casting launders, ceramic filter boxes and casting table modules. The aggregates in this formulation have a maximum grain size of approximately 5 millimetres (0.20 inches) and the material supports a maximum service temperature of up to 1000°C (1832°F).

COMPOSITION

Material	Approximate Weight
SiO_2	58%
Al_2O_3	34%
CaO	6%
Fe_2O_3	<0.5%

BENEFITS

- Low thermal expansion
- Low thermal conductivity

APPLICATIONS

- Casting launders
- Ceramic filter bowls
- Casting table modules

AVAILABILITY

Ceramite SFW is available only as a precast, pre-fired casting.

STORAGE

Precast shapes must remain dry and stored away from moisture. If exposed to moisture, the shape must be fired to remove the excess moisture prior to use.

Pyrotek®

CERAMITE SFW

Property	Temperature	Value
Density – kg/m³ (lb/ft³)	20°C (68°F)	1800 (112)
	600°C (1112°F)	1600 (100)
Cold Modulus of Rupture – MPa (psi)	20°C (68°F)	4 (580)
	600°C (1112°F)	5 (725)
	850°C (1562°F)	6 (870)
	1000°C (1832°F)	6 (870)
Cold Compressive Strength – MPa (psi)	20°C (68°F)	24 (3480)
	600°C (1112°F)	37 (5370)
	850°C (1562°F)	44 (6380)
	1000°C (1832°F)	42 (6090)
Abrasion – cm³ (in³)	20°C (68°F)	21.8 (1.33)
	600°C (1112°F)	19.9 (1.21)
Thermal Conductivity – W/m·K (BTU·in/ft²·hr·°F)	300°C (572°F)	0.6 (4.2)
	600°C (1112°F)	0.6 (4.2)
	900°C (1652°F)	0.7 (4.9)
Linear Thermal Expansion, 20–850°C (68–1562°F)		0.2%
Permanent Linear Change, 20–850°C (68–1562°F)		–0.7%
Maximum Service Temperature		1000 °C (1832 °F)
Maximum Grain Size – mm (in)		~5 (0.20)

Note: The physical and chemical properties listed represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice.

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