

## Product Description

A versatile high strength, general purpose concrete, for casting and gunning applications up to 1400°C (2550°F). It is especially recommended for boilers, door lining, furnace floor lining, car tops.

Properties	Firecrete STD
Region of Manufacture	Europe
Bond Type	Hydraulic
Method of application	Cast / Gun
Maximum Service Temperature, °C (°F)	1400 (2550)
ASTM C401-91 Classification	C
Estimated weight of dry material/ m <sup>3</sup> of construction, kg (lb)	1980 (124)
Water addition, % by weight	14
Maximum grain size, mm	5
Packaging in bags, kg (lb)	25 (55)

The product(s) represented are intended for industrial refractory applications. The values and application information in this datasheet are given for guidance only. The values and the information given are subject to normal manufacturing variation and may be subject to change without notice. Morgan Advanced Materials – Thermal Ceramics makes no guarantees and gives no warranties about the suitability of a product, and you should seek advice to confirm the product's suitability for use with Morgan Advanced Materials.

# Firecrete® STD

## Product Data Sheet



Density, kg/m <sup>3</sup> (pcf), ASTM C134	
oven dried, 110°C (230°F)	2090 (130.4)
after 5 hours firing, 815°C (1500°F)	1970 (122.9)
Cold crushing strength, MPa (psi), ASTM C133	
oven dried, 110°C (230°F)	41.4 (6003)
after 5 hours firing, 815°C (1500°F)	28.9 (4190)
after 5 hours firing, 1000°C (1832°F)	22.5 (3262)
Permanent linear change, %, ASTM C113	
after 5 hours, 815°C (1500°F)	-0.2
after 5 hours, 1000°C (1832°F)	-0.2
Thermal conductivity, W/m•K (BTU•in./hr•ft <sup>2</sup> •°F), ASTM C201/417	
400°C (752°F)	0.73 (5.06)
600°C (1112°F)	0.78 (5.41)
800°C (1472°F)	0.82 (5.69)
1000°C (1832°F)	0.85 (5.90)
Chemical composition, %	
Alumina, Al <sub>2</sub> O <sub>3</sub>	44.8
Silica, SiO <sub>2</sub>	38.3
Ferric oxide, Fe <sub>2</sub> O <sub>3</sub>	4.8
Titanium oxide, TiO <sub>2</sub>	1.9
Calcium oxide, CaO	10.0
Alkalis as, MgO+K <sub>2</sub> O+Na <sub>2</sub> O	0.6
Ignition Loss	0.7

### Storage and Shelf Life

- Should be stored in dry conditions, unopened packaging on pallets. Do not store on ground. Keep out of rain and damp conditions.
- Shelf life is of twelve months with original packaging, double shrink film and dehydrating agent provided if the monolithic is stored under these recommended conditions.

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