

## Firecrete<sup>®</sup> HT Product Data Sheet

## **Product Description**

A low cost, high alumina castable for temperatures up to 1540°C (2800°F). It is suitable for door linings, burner blocks, boilers and all types of furnace lining. A separate gunning version is also available.

| Properties  | Firecrete HT |
|---|--------------|
| Region of Manufacture   | Europe       |
| Bond Type   | Hydraulic    |
| Method of application   | Cast         |
| Maximum Service Temperature, °C (°F)                          | 1540 (2800)  |
| ASTM C401-91 Classification                                   | D            |
| Estimated weight of dry material/ m³ of construction, kg (lb) | 1950 (122)   |
| Water addition, % by weight                                   | 14           |
| Maximum grain size, mm  | 5            |
| Packaging in bags, kg (lb)                                    | 25 (55)      |

Whilst the values and application information in this datasheet are typical, they 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 - Thermal Ceramics.

## Firecrete<sup>®</sup> HT





| Density, kg/m³ (pcf), ASTM C134                                |               |  |
|--|---------------|--|
| oven dried, 110°C (230°F)                                      | 1980 (123.6)  |  |
| after 5 hours firing, 815°C (1500°F)                           | 1900 (118.6)) |  |
| Cold crushing strength, MPa (psi), ASTM C133                   |               |  |
| oven dried, 110°C (230°F)                                      | 26.9 (3900)   |  |
| after 5 hours firing, 815°C (1500°F)                           | 17.4 (2523)   |  |
| after 5 hours firing, 1000°C (1832°F)                          | 9.8 (1421)    |  |
| 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•ft²•°F), ASTM C201/417 |               |  |
| 400°C (752°F)  | 0.64 (4.44)   |  |
| 600°C (1112°F)   | 0.73 (5.06)   |  |
| 800°C (1472°F)   | 0.81 (5.62)   |  |
| 1000°C (1832°F)  | 0.92 (6.38)   |  |
| 1200°C (2192°F)  | 1.01 (7.01)   |  |
| Chemical composition, %  |               |  |
| Alumina, Al <sub>2</sub> O <sub>3</sub>                        | 49.7          |  |
| Silica, SiO <sub>2</sub>                                       | 43.4          |  |
| Ferric oxide, Fe <sub>2</sub> O <sub>3</sub>                   | 0.9           |  |
| Titanium oxide, TiO <sub>2</sub>                               | 1.4           |  |
| Calcium oxide, CaO   | 4.2           |  |
| Alkalis as, MgO+K <sub>2</sub> O+Na <sub>2</sub> O             | 0.5           |  |
| Ignition Loss  | 0.1           |  |

## 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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