

Product Description

A low lime, high alumina concrete for service up to 1370°C (2500°F). It combines an high strength with low thermal conductivity. Particularly recommended for arches, convection zones and ducts in petrochemical heaters. Also used for furnaces doors and covers, kiln car tops, etc. Conforms to class R of ASTM classification C-401-91.

Properties	Firelite 2500HS
Region of Manufacture	Europe
Bond Type	Hydraulic
Method of application	Cast
Maximum Service Temperature, °C (°F)	1370 (2500)
ASTM C401-91 Classification	R
Estimated weight of dry material/ m ³ of construction, kg (lb)	1422 (89)
Water addition, % by weight	34
Maximum grain size, mm	6

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.

Firelite[®] 2500HS

Product Data Sheet



Density, kg/m ³ (pcf), ASTM C134	
oven dried @ 110°C (230°F)	1540 (96.1)
after 5 hours firing @ 815°C (1500°F)	1425 (88.9)
Cold crushing strength, MPa (psi), ASTM C133	
oven dried, 110°C (230°C)	12.2 (1769)
after 5 hours firing, 815°C (1500°F)	8.7 (1261)
Permanent linear change, %, ASTM C113	
after 5 hours firing, 815°C (1500°F)	-0.2
Thermal conductivity, W/m·K (BTU·in./hr·ft ² ·°F), ASTM C201/417	
200°C (392°F)	0.40 (2.78)
400°C (752°C)	0.48 (3.33)
600°C (1112°F)	0.53 (3.68)
800°C (1472°F)	0.55 (3.82)
Chemical composition, %	
Alumina, Al ₂ O ₃	47.7
Silica, SiO ₂	33.5
Calcium Oxide, CaO	11.5
Ferric Oxide, Fe ₂ O ₃	5.1
Titanium Oxide, TiO ₂	1.2
Alkali as, MgO+K ₂ O+Na ₂ O	1.1

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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