

Product Description

An insulating lightweight concrete for service up to 1230°C (2250°F) to be installed by casting application. The low thermal conductivity coupled with relatively high mechanical strength make the product suited for petrochemical floor and doors working lining in both radiant and convection section. It conforms to ASTM C401-91 Classification O,P and Q.

A separate product data sheet is available for the gunning version.

Properties	Firelite 20
Region of Manufacture	Europe
Bond Type	Hydraulic
Method of application	Cast
Maximum Service Temperature, °C (°F)	1230 (2250)
ASTM C401-91 Classification	O, P, Q
Estimated weight of dry material/m ³ of construction, kg (lb)	960 (59.91)
Water addition, % by weight	62
Maximum grain size, mm	8
Packaging by weight, 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.

Firelite[®] 20

Product Data Sheet



Density, kg/m³ (pcf), ASTM C134	
oven dried, 110°C (230°F)	1040 (65.0)
after 5 hours firing, 815°C (1500°F)	960 (59.9)
Cold crushing strength, MPa (psi), ASTM C133	
oven dried, 110°C (230°C)	3.2 (464)
after 5 hours firing, 815°C (1500°F)	2.8 (406)
Permanent linear change, %, ASTM C113	
after 5 hours firing, 815°C (1500°F)	-0.2
after 5 hours firing, 1000°C (1832°F)	-0.2
after 5 hours firing, 1100°C (2012°F)	-0.5
after 5 hours firing, 1200°C (2192°F)	-0.4
Thermal conductivity, W/m·K (BTU·in/hr·ft²·°F), ASTM C201/417	
200°C (392°F)	0.20 (1.39)
400°C (752°C)	0.21 (1.45)
600°C (1112°F)	0.23 (1.59)
Chemical composition, %	
Alumina, Al ₂ O ₃	36.1
Silica, SiO ₂	33.1
Calcium Oxide, CaO	20.6
Ferric Oxide, Fe ₂ O ₃	5.5
Titanium Oxide, TiO ₂	0.9
Alkali as, MgO+K ₂ O+Na ₂ O	1.4
Ignition Loss	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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