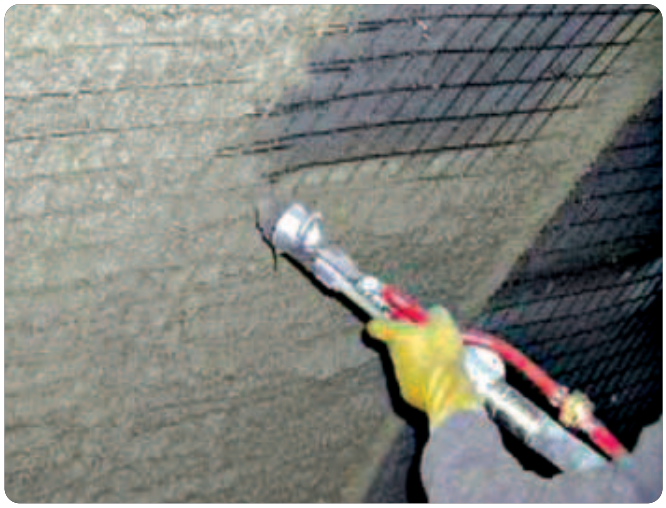
Data sheet

FireMaster® FireBarrier™ 135

ENGLISH



Description

FireMaster FireBarrier products are cementitious materials designed for a variety of fire protection applications requiring strong and weather resistant exterior finishes.

FireBarrier 135 is available in two different dry powder versions used for either spayed or cast application. The dry powder is mixed with water, either in a spray machine for sprayed application, or directly when cast into shapes. The cast version allows linings to be pre-formed when spray application is not convenient or practical.

Consisting of a unique formulation of Morgan Thermal Ceramics refractory technology. FireMaster FireBarrier when mixed with water can be applied by spray equipment to a variety of substrates.

FireMaster FireBarrier 135 is suitable for cellulosic and hydrocarbon fires and has been fire tested in high-rise hydrocarbon fires of up to 1350°C (2462°F).

FireMaster FireBarrier135 has been successfully fire tested to IMO A 754(18), ISO 834, RABT, Hydrocarbon modified (HCM) and RWS fire curves.

Features

- 2 versions available: one for sprayed application and one for cast application
- Very low spraying wastage during installation – less than 1% of weight
- Fast and easy to install - one, single layer application
- High adhesion strength - eight times greater than product weight
- High quality surface finish that can be painted
- FireBarrier 135 (*Patent No. 98830682.5)
- Refractory product capable of repeated exposure to 1350°C (2462°F). Comprehensively fire tested in over 11 fire tests for fire protection of tunnels EU MED approved A60 steel floating floor system

Applications

- Tunnel fire protection (concrete linings, escape refuges, ventilation shafts)
- A60 floating floors in ships

FIREMASTER®

Data sheet

FireMaster® FireBarrier™ 135

General properties

	Standard	Cast
Temperature, °C	1350	1350
Weight of dry material/m³ required of construction, kg	1050	1210
Installed density, kg/m³	1550	-
Long term density, kg/m³	1180	1235
Dry density, kg/m³	1100	1065
Cold crushing strength ASTM C-133, after 3 days curing, MPa	3.0	5.4
Cold crushing strength ASTM C-133, after 3 days curing + drying, MPa	4.0	4.2
Water to mix, %	50	38-40

Fire protection properties

- Class A1 Reaction to Fire in accordance with EN 13501-1 : 2002
- CSI Registration No. 0202/04
- Non combustible material According to IMO RES. A.799 (19) IMO RES. MSC61 (67)-FTP code, IMO MSC/Circ.1120
- MED B 520509CS

Physical properties

Adhesion strength, ASTM E-736/06. KPa	on steel surface	>49.5
	on concrete surface	>45.1
Modulus of elasticity, MPa	after setting	4.05
	after 28 days	4.05

High temperature performances

Thermal conductivity, ISO 8302:1991, at mean temperature of	
W/m•K: 100°C	0.165
W/m•K: 200°C	0.179
W/m•K: 300°C	0.192
W/m•K: 400°C	0.206
W/m•K: 500°C	0.219
W/m•K: 600°C	0.233
W/m•K: 700°C	0.246
Specific heat, EN 821-2	
j/g•K: 30°C	0.89
j/g•K: 500°C	1.21
j/g•K: 800°C	1.69
Chemical composition, %	
SiO_2	28.2
Al_2O_3	43.5
CaO Total	24.4
Fe_2O_3	1.5
TiO_2	0.8
$MgO + K_2O + Na_2O_3$	1.6

Availability and packaging

In bags of 25kg weight supplied to site and ready to mix with water. Also available in large 1000kg bags supplied shrink-wrapped on pallets. Pallet dimensions 1390mm x 1090mm x 1000mm. Gross weight of pallet 1030kg.

Contact

Europe:
Telephone:
+44 (0) 151 334 4030

E-mail:
marketing.tc@morganplc.com

North America:
Telephone:
+1 (706) 796 4200

E-mail:
northamerica.tc@morganplc.com

South America:
Telephone:
+52 01 800 841 659

E-mail:
southamerica.tc@morganplc.com

Asia:
Telephone:
+65 6595 0000

E-mail:
asia.mc@morganplc.com