

## Product Description

FireMaster FB100 is a medium density spray-applied fire protection material developed especially for fire protection of loadbearing structures against high temperature hydrocarbon fuel fires. FireMaster FB100 is supplied as a dry powder mixed with water on site and spray applied onto the substrate to be protected.

FireMaster FB100 is suitable for application onto steel or concrete structures and has the following advantages:

- Low rebound during spraying resulting in low wastage and clean installation
- Excellent adhesion allowing the entire applied thickness to be installed with a single spray application
- Efficient thickness requirements for fire protection

## Fire Performance Testing



FireMaster FB100 has been tested, certified and is UL listed for UL 1709 structural steel fire protection for up to 4 hours duration.

<b>Reaction to Fire</b>	EN 13501-1: Class A1	
<b>Resistance to Fire</b>	UL 1709 Fire Protection	
<b>UL Listing BYBU.XR749</b>		
	Rating, Hour	Thickness, minimum, mm (in)
	1	20 (0.79)
	1 1/2	26 (1.03)
	2	33 (1.30)
	2 1/2	39 (1.54)
	3	44 (1.74)
	3 1/2	49 (1.93)
	4	54 (2.13)
<b>Load bearing Concrete Structures EN 13381-33381-3</b>		
	4	32 (1.28)

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.

# FireMaster® FB100

## Fire Protection Spray System

### Product Data Sheet



Density, applied, kg/m <sup>3</sup> (pcf)		
	Applied	624 - 672 (38.9 - 41.9)
	Dry @ 50°C (122°F)	595 (37.1)
Estimated weight of dry material/ m <sup>3</sup> for installation, kg (lb)		
		630 (39.3)
Cold crushing strength, MPa (psi), ASTM C133		
	50°C (122°F)	1.6 (232)
Packaging, kg (lb)		
		20 (44)
Thermal Conductivity, W/m•K (BTU•in/hr•ft <sup>2</sup> •°F), ASTM C177-19		
	100°C (212°F)	0.174 (1.21)
	200°C (392°F)	0.176 (1.22)
	300°C (572°F)	0.181 (1.26)
	400°C (752°F)	0.189 (1.31)
	500°C (932°F)	0.199 (1.39)
	600°C (1112°F)	0.211 (1.46)
	700°C (1292°F)	0.225 (1.56)

Thermal Diffusivity and Specific Heat, ASTM E-1461 and DIN EN 821			
Temperature, °C (°F)		Specific Heat, J/g•K	Thermal Diffusivity, mm <sup>2</sup> /s
300°C (572°F)		0.95	0.27
500°C (932°F)		1.47	0.26
800°C (932°F)		2.58	0.32

### 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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