

JM 2600 / Blakite / Blakite V /JM 3300



Type

Refractory air-setting mortars.

Classification Temperatures

JM 2600:	1430°C
Blakite:	1650°C
Blakite V:	1650°C
JM 3300:	1760°C

Maximum Continuous Use Temperature

The maximum continuous use temperature depends on the application. In case of doubt, refer to your local Morgan Thermal Ceramics distributor for advice.

Features

- Good workability, ideal plasticity and water retention
- Low drying and firing shrinkages
- High refractoriness
- High bonding strength
- Good resistance to chemical attack
- Stability of chemical components

Applications

- For laying insulating firebricks, super-duty and high alumina dense refractory bricks
- Provide resistance to infiltration of air or hot gases
- Hobby and laboratory kilns
- Retard penetration of slag and molten metal into the joints

Description

Morgan Thermal Ceramics refractory mortars are normally supplied as ready-to-use wet blends of finely-ground aggregates and special binders.

They develop good strength on air drying, forming strong joints and conferring an almost monolithic structure to the brickwork.

Available Types

- **JM 2600**
This is an air-setting cement developed for use in lower temperature applications, where a high strength bond is required. It is recommended for mortaring insulating firebricks for operating temperatures up to 1430°C and can be used for both trowelled and dipped joints.
- **Blakite**
This is a highly refractory mortar, dark grey in colour, which has a high water retention characteristic. It was specially developed for laying insulating firebricks but is also suitable for use with super duty and high alumina dense refractory bricks, at operating temperatures up to 1650°C. It is supplied in a consistency suitable for shallow patching or trowelling but requires the addition of approximately 5% water for dipping. Blakite is a good choice as a single, general purpose mortar on projects involving mainly insulating firebricks but also including some dense firebricks.
- **Blakite V**
This is the standard product with a harder consistency to be used to glue special refractory shapes and steel plates.
- **JM 3300**
A very highly refractory air-setting mortar suitable for laying JM 32 insulating firebricks, and high alumina dense refractory bricks and for operating temperatures up to 1760°C.

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Main Properties

	JM 2600	Blakite	Blakite V	JM 3300
Classification (ASTM C-199-84)	Medium Duty	Super Duty	Super Duty	Super Duty
Temperature limit (normal oxidizing conditions) (°C)	1430	1650	1650	1760
Properties Measured at Ambient Conditions (23°C/50% RH)				
Density (as applied) (kg/m ³)	1700	1900	1950	2000
Viscosity "for guidance" (Thermal Ceramics method Cylinder Penetration) (mm)	30	24	10	25
Modulus of rupture (dried at 100°C) (MPa)	12	20	21	28
High Temperature Performance				
Permanent linear change when dried (%)	-3	-2.4	-2.3	-2
Refractories (ASTM C-24-84) (PCE)	23	33	33	34
Chemical Composition (%)				
Al ₂ O ₃	33.4	43.1	43.1	54.8
SiO ₂	60.7	51.7	51.7	40.6
Fe ₂ O ₃	1.3	1.2	1.2	0.9
TiO ₂	1.2	1.0	1.0	0.6
CaO + MgO	0.3	0.2	0.2	0.2
K ₂ O + Na ₂ O	2.8	2.7	2.7	0.3
Quantity Required and Packaging				
Quantity required to set 1000 bricks* (kg)	180	200	N/A	200

* Amount depends upon thickness of the joint and porosity of the brick. The figure given is for trowelled joint, approx 2mm thick

JM 2600, Blakite, Blakite V and JM 3300 are delivered ready-to-use, in metal drums. Dry JM 2600 and dry Blakite are available on request (subject to special technical requirements).

Standard Packaging	JM 2600	Blakite	Blakite V	JM 3300
12 metal drums of 50kg on pallet	X	X		X
40 metal drums of 20kg on pallet		X	X	

The values given herein are typical values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Therefore, the data contained herein should not be used for specification purposes. Check with your Thermal Ceramics office to obtain current information.

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