JM® and Blakite Mortars

Product Data Sheet



Product Description

Our JM and Blakite Mortars are designed to complement our Thermal Ceramics dense and insulating firebricks in various thermal, chemical, and physical service conditions. Available in ready-to-use wet blends of finely-ground aggregates and special binders will provide the convenience you want with the performance you need for practically every high temperature refractory application.

- **JM 2600**: 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**: 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.
- **JM 3300**: is 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

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

Storage and Shelf Life

The guaranteed shelf life of these mortars is 24 months provided the drums remain unopened and undamaged with their airtight seal intact and without holes in the drum itself.

Mortar stored for extended periods may separate and form a clear liquid as a top layer. If this should occur, then the mortar should be thoroughly mixed prior to use.

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Properties	JM 2600	Blakite	JM 3300
Region of Manufacture	EMEA	EMEA	EMEA
Material Grade	Wet, air setting	Wet, air setting	Wet, air setting
Classification, ASTM C-199	Medium Duty	Super Duty	Super Duty
Classification Temperature, in normal oxidizing conditions, °C (°F)	1430 (2600)	1650 (3000)	1760 (3200)
Quantity required, kg/1000 bricks NF1 size *Typical value. Amount depends upon thickness of the joint and porosity of the brick. The figure given is for trowelled joint, approximately 2mm thick	180	200	200
Brick type recommended use with	JM-23-400, JM-23, JM-24, JM-25 K-23, K-23HS, K-25, K-26 TJM-20, TJM-23, TJM-26C, TJM-26, TJM-B4, TJM-B5	JM-23-400, JM-23, JM-24, JM-25, JM-26SL, JM-25HD, JM-26, JM-26HD, JM-28, JM-28HD, JM-30, JM-30HD K-23, K-23HS, K-25, K-26 TJM-20, TJM-23, TJM-26C, TJM-26, TJM-28, TJM-30, TJM-B4, TJM-B5, TJM-B6, TJM-B7, TJM-C1, TJM-C2	TJM-30, JM-30, JM-30HD, TJM-Ba90, Insalcor
Modulus of Rupture, MPa (psi), ASTM C-133			
dried @100°C (212°F)	12 (1740)	20 (2900)	28 (4060)
Permanent Linear Shrinkage, ASTM C-210, 24 hours, %			
after drying	-3	-2.4	-2
Chemical Analysis, % weight basis after firing			
Alumina, Al_2O_3	33.4	43.1	54.8
Silica, SiO_2	60.7	51.7	40.6
Iron Oxide, Fe_2O_3	1.3	1.2	0.9
Titania, TiO_2	1.2	1	0.6
Calcia + Magnesia, CaO + MgO	0.3	0.2	0.2
Alkalis as $Na_2O + K_2O$	2.8	2.7	2.3

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