

## FL-06

### SKAMOL insulating mortar

- up to 1150°C (2102°F)

#### Description

The purpose of insulating mortars for jointing bricks, blocks and boards together is to bond together many small units into a stable, gas-tight structure. The composition of the mortar and the workmanship applied determine the stability and thermal efficiency of the finished insulating lining.

It is very important that the proper mortar is used for the particular condition and material to ensure correct bonding, to avoid gas leakage, to minimise heat losses, and to provide maximum efficiency of the thermal insulation.

To meet the various design requirements of furnace linings SKAMOL FL-06 Mortar is specifically designed for use with SKAMOL insulating bricks, blocks and boards in various applications. However, the mortar is equally applicable for other furnace lining products up to the maximum service temperature of the mortar.

SKAMOL FL-06 Mortar is designed for maximum service temperature up to 1150°C (2102°F).

FL-06 insulating mortar has outstanding properties within its service temperature range and possesses the water-retentive properties required for quick and easy laying of dry bricks, blocks and boards. Working instructions are available on separate sheet.

#### Application

An insulating refractory mortar for jointing at dry state of

- All SKAMOL bricks, molar, perlite and vermiculite bricks
- Insulating fire bricks up to gr 21
- All SKAMOL boards, Super-ISOL, Super-1100E, V-1100 and VIP-12
- Other insulating boards to gr 21

The SKAMOL FL-06 is a combined air and heat-setting mortar.

#### Working Instructions

FL-06 Mortar is packed in 25 kg plastic sacks. A soluble silicate powder is enclosed in a separate bag to be admixed at dry state to the refractory powder. After thorough mixing of the dry powders, the correct amount of water is added and another thorough mixing is needed. After 15 minutes mix again - adjust if necessary by adding water or powder - and the mortar is ready for use. For best result always remember:

- Only use clean water
- Mix well
- Use thin joints
- Fill all jointed surfaces

Quantity to set 1 m<sup>3</sup> (35.3 cu.ft.) of bricks: 110 kg (243 lbs)  
Quantity to fix 1 m<sup>2</sup> (11 sq.ft) of board area: 5.3 kg (11.7 lbs)  
Water requirement: 9.5 litres to 25 kg (2.5 US gal. to 55 lbs)

#### Packing and Storage

FL-06 insulating mortar is packed in plastic sacks of 25 kg (55 lbs), tare included, for site preparation. One-way pallets adequately protected are normally provided for transportation on site.

The plastic sacks supplied must be stored in dry condition and under cover to avoid direct sunlight.

# FL-06

## Skamol Insulating Mortar

for hot-face application and back-up insulation - up to 1150°C (2102°F)

<b>Maximum service temperature</b>		
	°C	1150
	°F	2102
<b>Bulk density as supplied</b>		
	kg/m <sup>3</sup>	1300
	lbs/cu.ft.	81
<b>Bulk density, dried at 110°C (230°F)</b>		
	kg/m <sup>3</sup>	1600
	lbs/cu.ft.	100
<b>Pyrometric cone equivalent (ASTM C24-89 ORTON cones)</b>		
	°C	1585
	°F	2885
<b>Total porosity</b>		
	%	40
<b>Water content as supplied</b>		
	%	2
<b>Binder</b>		
		Silicate
<b>Joint thickness</b>		
Recommended	mm (inch)	3 (0.1")
Not to exceed	mm (inch)	5 (0.2")
<b>Chemical analysis, typical</b>		
	%	
Silica	SiO <sub>2</sub>	46
Alumina	Al <sub>2</sub> O <sub>3</sub>	40
Titanium oxide	TiO <sub>2</sub>	1.5
Ferric oxide	Fe <sub>2</sub> O <sub>3</sub>	1.2
Magnesia	MgO	0.9
Calcium oxide	CaO	0.4
Sodium oxide	Na <sub>2</sub> O	3.6
Potassium oxide	K <sub>2</sub> O	1.6
Loss on ignition 1025°C (1877°F)	LOI	4.1
<b>Usage</b>		
Quantity to set 1m <sup>3</sup> (35.3 ft <sup>3</sup> ) of bricks (equiv. 500 standard 230x114x76 mm)	kg (lbs)	110 (243)
Quantity to fix 1m <sup>2</sup> (11 ft <sup>2</sup> ) of slabs	kg (lbs)	5.33 (11.7)
<b>Water usage</b>		
	Litres to 25 kg	9.5
	US gallons to 55 lbs	2.5
<b>Setting mechanism</b>		
		air and heat-setting
<b>HS Tariff number</b>		
(Harmonized Commodity Description and Coding System)		3816.00.00

Data are average results of tests conducted under standard procedures and are subject to variation. Data contained in this data sheet are supplied in good faith as a technical service and are subject to change without notice. Misprint and errors excepted.

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