



SKAMOBAR-B1

Barrier bricks for aluminium reduction cells



Description

SKAMOBAR-B1 is a quality low-alumina fireclay barrier brick available in four standard shapes and sizes.

Standard dimensions of bricks which fulfil this specification:

Standard dimensions	
Length & width (mm)	Thickness (mm)
220 x 110	60
230 x 114	64, 76
250 x 124	64

SKAMOBAR-B1 is characterized by its content of alumina, max. 35 %, and its content of Silica, 60 %.

Product profile

- Excellent cryolite resistance
- Low thermal conductivity
- Low porosity
- Superior resistance to molten aluminium

Application

SKAMOBAR-B1 is an ideal and highly effective barrier brick for use in combination with Skamol insulating products to form a protective and heat reducing lining above the insulating materials in aluminium reduction cells.

Increased efficiency

SKAMOBAR-B1 has an excellent cryolite resistance, which contributes to the increased cell life. The relatively low thermal conductivity reduces heat transfer through the bottom of the cells and thus contributes to reducing electrical energy consumption per unit metal produced.

Standard packing

SKAMOBAR-B1 bricks are packed on wooden pallets (1100 x 900 mm) with paper between each layer, plastic on top and around the bricks and fixed with plastic straps.



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Grade		SKAMOBAR-B1
Maximum service temperature		
	°C	1500
	°F	2732
Bulk density (EN 993-1 1995)		
	kg/m ³	2200
	lbs/cu.ft.	137
Apparent porosity (EN 993-1 1995)		
	%	18
Cold crushing strength (EN 993-5 1998)		
	MPa	35
	lbs./sq.in.	5076
Thermal conductivity (EN 993-15 1998)		
mean temp.	@ 200°C	W/(m×K) 0.93
	@ 400°C	0.99
	@ 600°C	1.05
	@ 800°C	1.11
	@ 1000°C	1.17
	@ 392°F	BTU/(sq.ft.×h×°F/in) 6.45
	@ 752°F	6.87
	@ 1112°F	7.28
	@ 1472°F	7.70
	@ 1832°F	8.11
Chemical analysis, typical (XRF, AAS, EN 955-2 1995)		
	%	
Silica	SiO ₂	60
Alumina	Al ₂ O ₃	30
Calcium oxide	CaO	0.4
Potassium oxide	K ₂ O	0.3
Sodium oxide	Na ₂ O	0.1
Magnesium oxide	MgO	0.1
Ferric oxide	Fe ₂ O ₃	2.5
Titanium oxide	TiO ₂	2.5
Dimensional tolerances:		
Dimensions < 200 mm	mm (inches)	± 1.5 mm (±0.06")
Dimensions > 200 mm	%	± 0.75
Dimensions		
	Length x width, mm	Thickness, mm
	220 x 110	60
	230 x 114	64, 76
	250 x 124	64
Other dimensions available on request.		
Max capability of press: 700 x 400 x 200 mm		
Colour		Yellowish red

The manufacturer is certified according to ISO 9002 and approved supplier by Skamol A/S. Data are average results of tests conducted on standard bricks (230 mm x 114 mm x 64 mm), under standard procedures and are subject to variation. All data are supplied in good faith and are subject to change without notice. No warranty or guarantee is implied. Misprint and errors excepted.

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