

# SKAMOTEC-C

## Lightweight Fire Protection



Skamol A/S  
Østergade 58-60  
DK-7900 Nykøbing Mors  
Denmark  
Tel: +45 9772 1533  
Fax: +45 9772 4975  
insulation@skamol.com

[www.skamol.com](http://www.skamol.com)



### SKAMOTEC-C

#### - the Low Density Fireboard

Selecting the most suitable fire protective material is a critical and highly important decision.

With SKAMOTEC-C, a calcium silicate lightweight fireboard, however, the choice becomes an easy one.

#### Description

SKAMOTEC-C is among the lightest fireboards on the market with a density of only 290 kg/m<sup>3</sup> (18.0 lbs./sq.ft.).

In addition, SKAMOTEC-C exhibits the following features:

- Easy installation
- Dimensional stability
- Non-dusting surfaces
- Workable with conventional woodworking tools

#### Application

SKAMOTEC-C affords total fire protection for the building and construction industry and is specifically designed for fire protection of load-bearing steel beams and columns.

#### Environmental Precautions

The SKAMOTEC-C fireboard meets the highest environmental, health and safety requirements.

SKAMOTEC-C is free from asbestos and contains no other known health hazardous components as well as being non-irritant to skin and mucuous membranes.

A full health and safety data sheet is available.

SKAMOTEC-C fireboard does not emit toxic or hazardous fumes before, during or after installation, or under exposure to fire.

#### Classification

Tested to DIN 4102, Test Certificate A1, Non-combustible, Z-PA-III 4.642 (Testing Contract 11.10.91 with IBMB, Braunschweig, Germany).

## Product Data

### General Technical Data

Material.....	Calcium Silicate Board
Classification DIN 4102 .....	A1, non-combustible (Z-PA-III 4.642) *)
Density (dry) .....	290 kg/m <sup>3</sup> (18.0 lbs/sq.ft.)
pH Value.....	8
Moisture Content (air dried).....	2%
Water Absorption.....	3 x own weight

\*) Testing contract 11.10.91 with IBMB,  
Braunschweig, Germany and Warrington Assessment  
No. C131266.

### Statistical Values

Compressive Strength .....	2.8 MPa (406 lbs/sq.in.)
Modulus of Rupture .....	1.7 MPa (246 lbs/sq.in.)

### Dimensional Tolerances

Length and Width .....	± 2.5 mm (0.10")
Thickness .....	± 1.5 mm (0.06")

### Thermal Properties

Thermal Conductivity at mean temperature .....	W/(m·K)
200°C	0.07
400°C	0.09
600°C	0.10
	BTU/(sq.ft.·°F/in)
392° F	0.49
752° F	0.62
1112° F	0.69
Specific heat .....	0.84 kJ/(kg·K), (0.20 BTU/(lb·°F))
Pyrometric Cone Equivalent .....	1345°C (2453°F)

### Chemical Analysis

Silicon dioxide SiO <sub>2</sub> .....	46.0%
Calcium oxide CaO .....	45.0%
Aluminium oxide Al <sub>2</sub> O <sub>3</sub> .....	0.3%
Iron oxide Fe <sub>2</sub> O <sub>3</sub> .....	0.3%
Magnesium oxide MgO .....	0.6%
Potassium oxide K <sub>2</sub> O .....	0.1%
Sodium oxide Na <sub>2</sub> O.....	0.1%
L.O.I., 1025°C (1877°F).....	7.0%

### Effects of Moisture

SKAMOTEC-C Fireboard can absorb moisture resulting in some temporary loss of strength which is recovered on drying.

### Surface Treatment

All standard sizes are available with water repellent surface treatment on request.

### Biological Attack

SKAMOTEC-C Fireboard will not support mould growth.

### Compatibility

SKAMOTEC-C will not promote corrosion of steelwork or saponification of paints. Compatible with common building materials.

### Storage

In dry conditions. Under cover, off the ground.

## Dimensions, Weights and Packaging

Standard Fireboards					
Length mm (in.)	Width mm (in.)	Thickness mm (in.)	Weight kg/m <sup>2</sup> (lbs./sq.ft.) (at 290 kg/m <sup>3</sup> )	Packaging	
				Units/Pallet	m <sup>2</sup> /Pallet (sq.ft./Pallet)
1220 mm (48")	1000 mm or (36")	25 (1")	7.3 (1,5)	72	87.8 (945)
		30 (1,2")	8.7 (1,8)	60	73.2 (788)
		35 (1,4")	10.2 (2,1)	51	62.2 (670)
		40 (1,6")	11.6 (2,4)	48	58.6 (631)
		45 (1,8")	13.1 (2,7)	42	51.2 (551)
		50 (2,0")	14.5 (3,0)	36	43.9 (473)
		65 (2,6")	18.9 (3,9)	28	34.2 (368)
		85 (3,4")	24.7 (5,1)	21	25.6 (276)
1000 mm or (36")	610 mm (24")	25 (1")	7.3 (1,5)	144	87.8 (945)
		30 (1,2")	8.7 (1,8)	120	73.2 (788)
		35 (1,4")	10.2 (2,1)	102	62.2 (670)
		40 (1,6")	11.6 (2,4)	96	58.6 (631)
		45 (1,8")	13.1 (2,7)	84	51.2 (551)
		50 (2,0")	14.5 (3,0)	72	43.9 (473)
		65 (2,6")	18.9 (3,9)	56	34.2 (368)
		85 (3,4")	24.7 (5,1)	42	25.6 (276)
	90 (3,5")	26.1 (5,3)	40	24.4 (263)	

The technical properties represent typical average 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.