

**Datasheet** English-Metric

#### Introduction

We have refined our low bio persistence fiber board range through detailed market assessments. This has led to four high-performing products, each excelling in specific criteria. At the core are the innovative SoliBoard™ ULS® and SoliBoard™ NXT®, now complemented by SoliBoard™ Backup and SoliBoard™ BB.

Built on our proven Generation III Ultra Low Shot fiber technology, these boards offer superior strength, appearance, and performance, with given classification temperatures from 1100°C to 1300°C. Ideal for refractory linings, back up applications and condensing boilers.

# SoliBoard™ Backup

SoliBoard Backup was developed to meet market demand for a lightweight, thermally insulating board ideally applied as a backup layer behind dense refractory linings. With a classification temperature of 1100°C, SoliBoard Backup performs comfortably and reliably in backup applications up to 1000°C.

#### SoliBoard™ BB

SoliBoard BB, or Boiler Board, is engineered for applications where high thermal cycling resistance and minimum heat accumulation is required. SoliBoard BB delivers optimal performance in domestic boiler systems.

## SoliBoard™ ULS®

SoliBoard ULS has long been the cornerstone of our low bio persistence fiber board product range. Known for its versatility, it is widely used across a broad spectrum of high-temperature applications where reliable thermal insulation, mechanical strength, and ease of machining are essential.

#### Soliboard™ NXT®

At the top of our Low Bio Persistence fiber board range is SoliBoard NXT. A product that redefines expectations in high temperature insulation. While rated to 1300°C with continuous use up to 1150°C, its real strength lies in its exceptional mechanical integrity, smooth machinability and performance in a wide range of applications.

Vulcor is offering one of the most extensive product ranges in high temperature board products. It is composed of 12 specially tailored boards based on Refractory Ceramic Fiber (RCF), Low Bio Persistence (LBP) fiber and Polycrystalline Wool (PCW).

Whether your application requires performance at 800°C or at 1600°C, we have the solution.

### **Type**

Boards manufactured from high temperature Low Bio Persistence insulation wool and selected fillers.

## **Temperature range**

**SoliBoard™ Backup** has a classification temperature of 1100°C.

**SoliBoard™ BB** has a classification temperature of 1200°C.

**SoliBoard™ ULS®** has a classification temperature of 1200°C.

**SoliBoard<sup>TM</sup> NXT®** has a classification temperature of 1300°C.

The maximum continuous use temperature provided on the datasheet is guideline and only applicable in a clean oxidizing atmosphere.

## **Typical applications**

- Thermal insulation for furnace linings
- High temperature back-up insulation
- Lining combustion chamber for domestic boilers and heaters
- General technical insulation of furnaces and technical installations

### **Benefits**

- Low shot technology
- Excellent insulation performance
- High handling strength
- Resistant to erosion from high gas velocities
- Can be used in direct flame contact
- Low shrinkage
- Excellent thermal stability
- Resistant to thermal shock
- Exonerated of carcinogenic classification under Note Q





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Properties measured	Standard	Unit	SoliBoard™	SoliBoard™	SoliBoard™	SoliBoard™
Troperties measured			Backup	BB-grade	ULS®-grade	NXT®-grade
Grade			LBP	LBP	LBP	LBP
Colour			white/tan	white/tan	white/tan	white/tan
Surface			barky	one-side smooth	smooth	smooth
Classification temperature		°C	1100	1200	1200	1300
Continuous use temperature		°C	1000	1050	1100	1150
Density		kg/m3	250	260	320	310
Modules of Rupture (unfired)	EN 993-6	kPa	≥ 550	≥ 550	≥ 550	≥ 550
Compressive Strength	EN ISO-8895					
@ 10% deformation		kPa	≥ 120	≥ 140	≥ 180	≥ 180
Loss on ignition		wgt%	< 8	< 8	< 8	< 8
Permanent linear shrinkage	EN 1094-7	%				
@1100°C			≤ 2			
@1200°C				≤ 2	≤ 2	
@1300°C						≤ 2
Thermal conductivity	ASTM C201	W/mK				
@ 200°C			0,05	0,06	0,06	0,06
@ 400°C			0,08	0,08	0,09	0,09
@ 600°C			0,11	0,12	0,12	0,12
@ 800°C			0,15	0,16	0,15	0,15
@ 1000°C			0,20	0,19	0,19	0,19
@ 1100°C					0,21	0,21
@ 1200°C						

### Contact

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This information is composed for marketing purposes and is accurate to the best knowledge of Vulcor Insulation BV. All values give are typical values, not guaranteed unless explicitly expressed.

As Vulcor Insulation BV and its selected 3<sup>rd</sup> party partners strive to continually improve our products as means of continues development, properties may be subject to change without notice. Vulcor Insulation BV accepts no legal responsibility for use or reliance upon this data. For information regarding specific applications of the product please contact Vulcor Insulation BV.

The productlabel 'Soli', the company name 'Vulcor' and the 'ULS' technology are registered.

## **Availability**

SoliBoard is available in two standard formats; 1000×600 mm and 1200×1000 mm with thicknesses ranging from 6 mm, all the way up to 100 mm. We offer two packaging options: durable carton boxes for manual on-site installation, and industrial packaging for automated, high-volume CNC based processing. Please find the quantities per pallet for either option:

	Standard Packaging Boards per Pallet							
	S	Industrial Packed						
Thickness	per box	1000x600 mm	1200x1000 mm	1200x1000 mm				
6 mm	20 pcs	560	280	300				
10 mm	12 pcs	336	168	204				
13 mm	10 pcs	280	140	156				
15 mm	8 pcs	224	112	136				
20 mm	6 pcs	168	90	102				
25 mm	5 pcs	140	70	81				
40 mm	3 pcs	90	45	51				
50 mm	2 pcs	72	36	40				
60 mm	1 pcs	48	24	34				
75 mm	1 pcs	44	22	27				
100 mm	1 pcs	36	18	20				

## Product range

SoliBoard is part of an extensive product range supplied by Vulcor Insulation. Vulcor Insulation is supplying insulation solutions from ambient to high temperature applications. All products offered by Vulcor are manufactured in house or sourced from exclusive trusted 3<sup>rd</sup> party partners.

#### First firing

SoliBoard formulations contain a small amount of organic binder to improve cold handling strength. During the initial firing, this binder burns off, which may produce temporary fumes and odor that dissipate shortly after.

### **Technical support**

Vulcor Insulation provides specifiers and customers with guidance on all aspects of the materials selection for their application, the installation and compliance with relevant regulations and performance standards.

For additional information about product performance or to identify the recommended product for your application, please contact the team at Vulcor Insulation.