

Introduction

SoliBloc™ modules are unique monolithic fiber modules that incorporate our premium Generation III fiber technology. They are available in both Refractory Ceramic Fiber and Low Bio Persistence fiber variants. These modules offer exceptional thermal insulation, high strength, and are suitable for applications with high gas velocities.

The SoliBloc™ module consist of two sections of SoliSlab™ arranged in an edge grain orientation. These sections are held together by two stainless steel tubes placed transversely through the modules, away from the hot face. The edge grain orientation and interlocking of the fibers enable the SoliBloc™ modules to withstand high gas velocities without fiber erosion.

SoliBloc™ modules are available in densities from 160 to 220 kg/m³ in a standard dimension of 305x305 mm. Thanks to our high fiber index, our 220 kg/m³ modules deliver the same performance as a traditional 240 kg/m³ module.

SoliBloc™ X-grade

SoliBloc X-grade is using the latest spinning technology to deliver a better performance in comparison to a standard fiber modules. With a classification temperature of 1260°C it is recommended for use up to 1100°C.

SoliBloc™ ZR-grade

Rated at 1430°C classification temperature and commonly approved for applications in the Petrochemical and Iron and Steel industry where the standard RCF fiber is insufficient due to high process temperatures.

SoliBloc modules are anchored to the furnace casing with one of our 3 standardized anchoring systems.

- Center fix direct weld system,
- Center fix tube and stud system,
- Side fix anchor system system

All offered anchoring systems come with all required items for the fixing system and the hardware is offered in various grades of stainless steel.

Type

Monolithic Fiber Modules manufactured from high temperature Refractory Ceramic Fiber.

Temperature range

SoliBloc™ X-grade modules have a classification temperature of 1260°C.

SoliBloc™ ZR-grade modules have a classification temperature of 1430°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 lining
- Furnace lining in Ceramics and Glass
- Thermal insulation for Petrochemical Industry (like process heaters, reformers, cracker units)
- Chemically stable insulation for Steel Treatment (reheating-, annealing-, and rotary hearth furnaces)
- Linings in Ceramic Industry (tunnel kilns and intermittent kilns)
- General technical insulation of furnaces and technical installations

Benefits

- Proven technical solution
- Low shot technology
- Excellent insulation performance
- High handling strength
- Unaffected by most chemicals
- Excellent thermal stability
- Resistant to thermal shock



Properties measured	Standard	Unit	Solibloc™ X-grade			Solibloc™ ZR-grade		
Grade			RCF			RCF		
Colour			white			white		
Classification temperature		°C	1260			1430		
Continuous use temperature		°C	1100			1300		
Density		kg/m³	160	192	220	160	192	220
Thickness range		mm	≥ 100			≥ 100		
Permanent linear shrinkage	EN1094-7	%						
@1200°C			< 3					
@1400°C						< 3		
Thermal conductivity	ASTM C201	W/mK						
@ 200°C			0,06	0,06	0,06	0,07	0,06	0,06
@ 400°C			0,10	0,10	0,09	0,10	0,10	0,09
@ 600°C			0,18	0,15	0,14	0,18	0,15	0,14
@ 800°C			0,24	0,22	0,20	0,25	0,23	0,20
@ 1000°C			0,33	0,30	0,28	0,34	0,31	0,28
Chemical composition,	ISO12677	%						
SiO ₂			52-55			44-50		
Al ₂ O ₃			45-47			35-38		
ZrO ₂			-			15-17		
Other			< 1			< 1		

Contact

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Availability

In standard size the modules are packed in carton boxes of 320x320x970 mm (holding multiple modules) with 24 boxes per pallet. Please refer to the list below for packaging details of the SoliBloc modules, other sizes are available on request.

Length (mm)	Width (mm)	Thickness (mm)	Pieces per carton	Pieces per pallet
305	305	100	9	216
305	305	150	6	144
305	305	200	5	120
305	305	250	4	96
305	305	300	3	72

Tailor to fit

We offer our SoliBloc™ in standard straight 305x305 mm modules. For projects we also offer tailor modules to meet specific engineering requirements, such as L-shaped corner modules and other special shapes.

Please let us know if you require any further information or have specific engineering needs. We are dedicated to providing high-quality fiber modules that meet your thermal insulation and strength requirements.

Product range

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

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.