

Introduction

SoliPaper™ High Temperature Series offers pure PCW and PCW-blended grades for the most demanding, high-temperature applications. Our SoliPaper™ High Temperature Series can be used to provide both cost-effective and high-quality solutions, suitable for a diverse range of applications, industries, and environments.

Our SoliPaper™ High Temperature can either be based on pure PCW fiber or a blend of PCW with our unique SoliWool HA-grade. These products are designed for continuous use at temperatures over 1260°C in clean atmospheres or when standard RCF papers or LBP fiber paper cannot be used due to temperature requirements in specialized atmospheres.

SoliPaper PCW35 HT-grade

SoliPaper PCW35 HT-grade is the most cost effective solution for applications where standard RCF fiber papers are reaching their practical use limits. Manufactured from a mixture of SoliWool HA-grade, premium quality PCW fibers and specialty organic binders. SoliPaper PCW35 HT-grade provides a classification temperature of 1500°C and is advised for applications with a maximum continuous use temperature of 1350°C.

SoliPaper PCW100 HT-grade

Our top end SoliPaper is the SoliPaper PCW100 HT-grade. This paper is manufactured from purely PCW fibers and a minimum quantity of organic binders. Tested for a classification temperature of 1600°C with much less than 2% shrinkage we can comfortably advise SoliPaper PCW100 HT-grade for applications with a maximum continuous use temperature of 1430°C.

SoliPaper PCW Blended Grades are using organic binders which burn out on the first firing, starting at approximately 250°C.

Type

High Temperature insulation paper manufactured from either a mixture of Polycrystalline Wool (PCW) fibers and Refractory Ceramic Fiber (RCF), or pure Polycrystalline Wool (PCW) fibers with organic binder.

Temperature range

SoliPaper™ PCW35 HT-grade has a classification temperature of 1500°C.

SoliPaper™ PCW100 HT-grade has a classification temperature of 1600°C.

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

Typical applications

- Filler for expansion joints between pre-casted shapes and IFB linings
- Insulation in furnaces with low concentrations pollutions*
- Laboratory-, vacuum– and dental kilns requiring stability and high temperature performance
- General technical insulation of furnaces and technical installations

* ask Vulcor for advise on your specific application.

Benefits

- High strength and good machinability
- Excellent insulation performance
- Smooth surface and low dust
- Chemically resistant to most pollutions
- Excellent thermal stability
- Cost effective solution versus pure PCW paper (SoliPaper PCW35 HT-grade)
- Capability to operate in reducing atmospheres (SoliPaper PCW100 HT-grade)



Properties measured	Standard	Unit	SoliPaper PCW35 HT-grade	SoliPaper PCW100 HT-grade
Grade			PCW/RCF	PCW
Colour			white	white
Classification temperature		°C	1500	1600
Continuous use temperature		°C	1350	1500
Density		kg/m ³	210	180
Mean fiber diameter		µm	2.5-5.5	5.5
Loss on ignition		wgt%	< 8	< 6
Permanent linear shrinkage	EN 1094-7	%		
@1400°C			< 2	
@1600°C				< 2
Thermal conductivity	ASTM C201	W/mK		
@ 200°C			0,05	0,05
@ 400°C			0,07	0,07
@ 600°C			0,10	0,10
@ 800°C			0,13	0,13
@ 1000°C			0,18	0,175
@ 1200°C				0,245
Chemical composition (after firing),	ISO12677	%		
Al ₂ O ₃			54-57	72
SiO ₂			42-46	28
ZrO ₂			-	-
Other			< 1	< 1

Contact

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

Availability

SoliPaper High Temperature Series is standard supplied in carton boxes. All our paper are packed on a heat treated export pallet. Standard rolls are packed with 42 rolls per pallet. Please refer to the list below for dimensions of the standard rolls.

Length (mm)	Width (mm)	Thickness (mm)
60000	610	1
30000	610	2
20000	610	3
15000	610	4
12000	610	5
10000	610	6

Product range

SoliPaper High Temperature Series 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.