TECHNICAL DATASHEET

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4AC.059
Fabric – Zirconia

Overview

ZYW zirconia fabrics are flexible textiles made of zirconia fibre stabilised with approximately 10 % yttrium oxide. The fabrics are composed of continuous monofilaments that are mechanically interlocked in order to form a woven structure. This production ensures extreme thermal and chemical resistance in a flexible form.

ZYW fabrics have an extremely low thermal conductivity. As they are resistant up to 2,200 °C, they can be used as battery separators at high energy, thermal insulators in crystal growth furnaces and hot gas filters. They can be easily cut.

Technical Data

Properties		Unit	ZYW-15	ZYW-30A
Material			Zirconia	
Composition		%	ZrO_2: 90 Y_2O_3: 10 Others: < 0.25	
Weave type			Plain	Satin
Treatment			Untreated	
Basis weight		g/m²	291	772
Width		mm	457	457
Thickness		mm	0.38	0.64
Temperature	**Operating**	°C	2,200	
	Peak		2,230	
Tensile Strength		N/m	151	855
Apparent Density		g/cm³	1.02	0.94
Porosity		%	87	83
Linear shrinkage after 1h at 1650 °C		%	5.5	3.9

General Data

Material	Thermal resistivity	Mechanical strength	Chemical resistance
Zirconia	★★★★★	★☆☆☆☆	★☆☆☆☆ Only mineral acids boiling over a short period of time

The physical properties in this documentation are provided for informational purposes only and do not constitute a contractual commitment. Please contact our technical service if you require any additional information.