TECHNICAL DATASHEET

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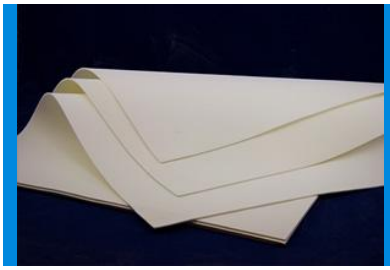

4AC.021
Felt – Zirconia

Overview

The felts are made of 100 % zirconia fibre with a diameter ranging from 4 to 6 µm, stabilised with 10 % yttrium oxide. They are entirely composed of inorganic fibres and contain no binder.

ZYF needled felts offer high resistance to extreme temperatures. The fibre has an extremely low thermal conductivity. Designed for highly corrosive environments and high-temperature applications, they don't react to alkaline vapour, salts or hot and concentrated solutions. Moreover, they remain efficient in highly oxidising and reducing atmospheres. They don't wet in contact with most molten metals.

These lightweight and very porous products are effective thermal insulators for crystal growth furnaces, for separators in electrolytic cells or for loading supports. They can be easily cut for custom applications.

Technical Data

Properties		Unit	ZYF-50	ZYF-100	ZYF-Z.1.5G	ZYF-150	ZYF-100A	ZYF-A2.13
Material			Zirconia					
Composition		%	ZrO_2: > 89 Y_2O_3: 10 Al_2O_3: < 0.01 SiO_2: < 0.02				ZrO_2: > 89 Y_2O_3: 10 Na_2O: < 500 ppm	ZrO_2: > 87 Y_2O_3: 10 Al_2O_3: 2 ± 1 SiO_2: < 0.02
Density		g/cm³	0.24	0.24	0.64	0.24	0.24	0.32
Thickness		mm	1.27	2.54	2.54 ± 0.7	3.81	2.54	4 ± 0.8
Temperature	**Operating**	°C	2,000	2,000	2,000	2,000	2,000	1,600
	Peak		2,100	2,100	2,100	2,100	2,100	1,700
Linear shrinkage after 1h at 1650 °C		%	5	4	14	4	6	1.5

Temperature	°C	540	815	1,092	1,372	1,650
Thermal conductivity	$W.K^{-1}.m^{-1}$	0.10	0.145	0.19	0.25	0.33

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Zirconia felt

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.