



Insulation Boards, Shapes & Cylinders made of polycrystalline (PCW) Mullite/ Al_2O_3 Wool from 1,250°C to 1,850°C

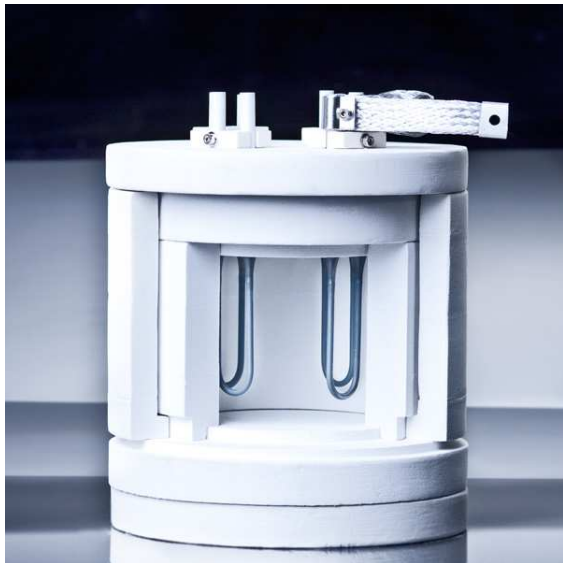
high temperature fibrous insulating materials made of polycrystalline alumina wool and special inorganic fibres and binders (also available as pre-fired boards).

As they have high flexural strength under high temperature, are light in weight and strong against thermal shock, they are suitable as an insulation material for fast heating and cooling condition such as high temperature electric furnace lining.

Additional characteristics are:

- low thermal conductivity
- good machinability (homogeneous structure)
- excellent spalling resistance in rapid heating
- very good high temperature resistance
- low heat storage
- excellent thermal shock resistance

Very widely used in heat processing equipment in the manufacture of various technical ceramics, powder injection moulding and electronic parts. Keeping abreast of demands for not only larger diameters and sizes but also complicated shapes, our ability to meet precise custom designs & specifications has been significantly enhanced through the use of today's most advanced machine tools, giving more freedom to the design of heating equipment.



MATERIAL PROPERTIES

	1260/390	1400/340	1600/400	1650/400	1750/400	1800/400	1800/700	1850/400	1850/500	
SiO₂ [%]	54	54	34	32	28	25	25	15	15	
Al₂O₃ [%]	46	30*	65	68	72	75	75	85	85	
Classification Temperature [°C]	1,260	1,400	1,600	1,650	1,750	1,800	1,800	1,850	1,850	
Max. Service Temperature (perm.) [°C]	1,100	1,300	1,480	1,550	1,700	1,750	1,750	1,800	1,800	
Density [kg/m ³]	(390)	(340)	400	400	400	400	700	400	500	
Bending Strength at 20°C [kN/m ²]	.....	.....	.....	146	127	.....	.....	176	176
Loss of Ignition [%]	(< 9.0)	(< 9.0)	.....	5.1	4.0	4.0	4.3	4.0	4.0
Thermal Conductivity [W/mK]										
800°C	(0.16)	(0.16)	0.15	0.16	0.14	0.21	0.21	0.21	0.21	
1,200°C	.....	(0.26)	0.22	0.23	0.23	0.23	0.33	0.33	0.33
1,400°C	.....	.....	.....	0.28	0.29	0.30	0.38	0.38	0.38
Linear Shrinkage, 24h at [%]										
1,200°C	(4.0)	.....	.....	.....	.....	.....	.....	.....	.....
1,400°C	.....	(4.0)	.....	0.8	.....	.....	.....	.....	.....
1,500°C	.....	.....	.....	-0.1	0.0	.....	0.0	0.1	.....
1,600°C	.....	.....	0.5	-0.6	-0.5	.....	-0.8	-0.2	0.1
1,700°C	.....	.....	.....	.....	-0.1	-0.3	-0.7	-0.4	-0.2
Shrinkage of Thickness, 24h at [%]										
1,600°C				-0.6	-0.4	-0.4	-0.4	-0.1	0.1	
1,700°C				1.8	1.2	1.0	1.0	-0.6	-0.2	
	(Values depend on thickness.)									*ZrO ₂ : 16 %

TYPES AVAILABLE

Standard Dimension Board	1000 x 610 mm*	900 x 600 mm*
Thickness Board	20 – 100 mm	20 – 100 mm
Max. Diameter Vacuum Shape		1500 mm*
Max. Length Vacuum Shape		1600 mm*
On request available: UltraBoard® A99 1600/500 (Al ₂ O ₃ = 99 %)		*Customized dimensions and shapes on request.

FIBERPLAST® 1,800

Al ₂ O ₃	Density [kg/m ³]	Type of Packaging	Comments
80 %	1,250	1 kg Other type of packaging upon request.	Ready to use, wet moldable for repair & maintenance.