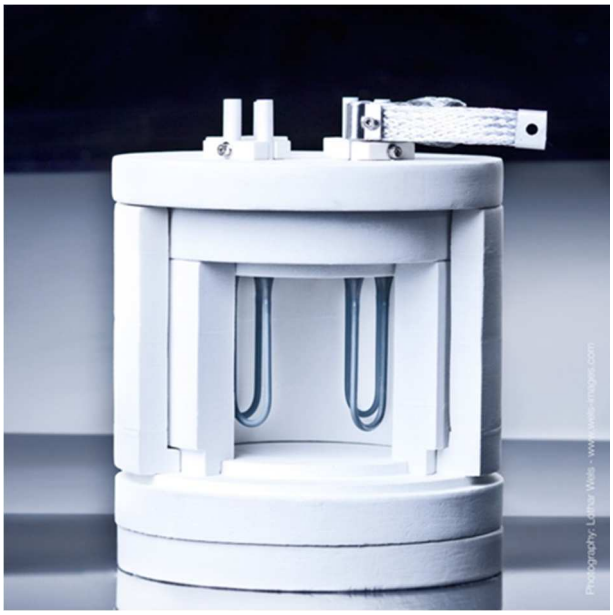
UltraBoard & UltraVac

Insulation Boards, Shapes and Cylinders made of Polycrystalline Mullite/Alumina Wool (PCW) up to 1800 °C (3272 °F)



UltraBoard and UltraVac are rigid high temperature fibrous insulating materials made of polycrystalline mullite/alumina wool (PCW) and special inorganic fibres and binders.

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

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

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Material Properties

	1500/300	1600/400	1650/400*	1750/400*	1750/400P	1750/400PS	1850/400	1850/500
SiO_2 [%]	37	35	33	28	22	15	15	15
Al_2O_3 [%]	63	65	67	72	78	85	85	85
Classification Temperature [°C]	1500	1600	1650	1750	1750	1750	1850	1850
[°F]	2732	2912	3002	3182	3182	3182	3362	3362
Max. Service Temperature (perm.) [°C]	1420	1480	1600	1700	1700	1700	1800	1800
[°F]	2588	2696	2912	3092	3092	3092	3272	3272
Density [kg/m³]	300	400	400	400	400	400	400	500
Loss of Ignition [%]	3.0	3.0	5.1	4.0	4.0	7.5	6.0	4.0
Thermal Conductivity [W/mK]								
800 °C (1472 °F)	0.14	0.15	0.16	0.14	0.14	0.22	0.18	0.25
1200 °C (2192 °F)	0.20	0.22	0.23	0.23	0.21	0.28	0.28	0.33
1400 °C (2552 °F)	.....	.....	0.28	0.29	0.24	0.33	0.34	0.38
Linear Shrinkage, 24h at [%]								
1200 °C (2192 °F)	.....	.....	.....	.....	.....	.....	.....	.....
1400 °C (2552 °F)	0.4	.....	.....	.....	.....	.....	.....	.....
1500 °C (2732 °F)	1.2	0.0	-0.1	0.0	.....	.....	.....	.....
1600 °C (2912 °F)	.....	0.5	0.2	-0.5	-0.1	-0.2	-0.3	0.0
1700 °C (3092 °F)	.....	.....	.....	0.2	0.0	0.7	-0.5	-0.2
1800 °C (3272 °F)	.....	.....	.....	.....	.....	.....	0.7	0.4

All boards are also available as prefired boards. Densities are available up to 700 kg/m³.
*Contain RCF (ASW).

Types Available

	1500/300, 1600/400	1650/400 – 1850/400	1850/500
Thickness Board	25, 40, 50, 100 mm	20, 25, 40, 50, 100 mm	20, 25, 40, 50 mm
Standard Dimension Board	900 mm x 600 mm*		
Max. Diameter Vacuum Shape	1500 mm*		
Max. Length Vacuum Shape	1600 mm*		

*Customised dimensions and shapes on request.

FiberPlast C 1800 D

Al_2O_3 [%]	Density [kg/m³]	Type of Packaging	Comments
80	1400 (wet) 1050 (dry)	1 kg Other packaging available on request.	Ready to use, wet moldable for adhesive bonding, repair & maintenance.

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