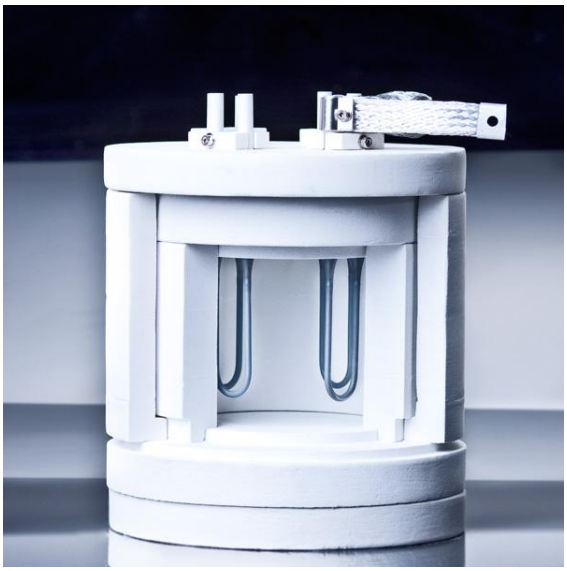

M.E.SCHUPP®-UltraBoard and UltraVac

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

M.E.SCHUPP®-UltraBoard and UltraVac are rigid high temperature fibrous insulating materials made of polycrystalline alumina wool and special inorganic fibres and binders (also available as prefired 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 heating-storage
- excellent thermal shock resistance

UltraBoard and UltraVac have been very widely used in heat processing equipment in the manufacture of various technical ceramics, PM 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.

UltraBoard & UltraVac

MATERIAL PROPERTIES

	1260/400	1400/320	1600/400	1650/400	1750/400	1800/400	1800/700	1850/400
SiO_2 [%]	54	54	34	32	28	25	25	15
Al_2O_3 [%]	46	30 *	65	68	72	75	75	85
Classification Temperature [°C]	1,260	1,400	1,600	1,650	1,750	1,800	1,800	1,850
Max. Service Temperature (perm.) [°C]	1,100	1,300	1,480	1,550	1,700	1,750	1,750	1,800
Density[kg/m³]	400	300	400	400	400	400	700	500
Bending Strenght (kgf/cm²) at 20°C [kN/m²]	…..	…..	…..	146	127		(290)	176
Loss of Ignitio [%]	<9.0	<9.0	…..	5.1	4.0	4.0	4.3	4.0
Thermal Conductivity [W/mK]								
800°C	0,16	0,16	0,15	0,16	0,14	0,21	0,21	0,21
1200°C	…..	0,26	0,22	0,23	0,23	0,23	0,33	0,33
1400°C	…..	…..	…..	0,28	0,29	0,30	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
1,700°C	…..	…..	…..	…..	-0,1	-0,3	-0,7	-0,4
Shrinkage of Thickness, 24h at [%]								
1,600°C					-0.4	-0.4	-0.4	-0,1
1,700°C				1.8…..	1.2	1.2	1.2	-0,6

*ZrO_2: 16%

TYPES AVAILABLE

Standard Dimension Board	900 x 600mm*	1000 x 500mm*
Thickness Board	20 – 100mm	20 – 100mm
Max. Diameter Vacuum Shape	1500mm*	
Max. Length Vacuum Shape	1600mm*	

On request available: UltraBoard® A 99: 1650/350 (Al_2O_3 = 99%)
* Customized dimensions and shapes on request

FIBERPLAST® 1,800°C

Al_2O_3	Density [kg/m³]	Type of Packaging	Comments
80%	1,250	1kg; 4kg; 15kg	Ready to use, wet moldable for repair & maintenance