

UltraBoard YOUR PARTNER WHERE IT MATTERS

Insulation boards made of polycrystalline mullite/alumina wool (PCW) up to **1800 °C (3272 °F)** application temperature



UltraBoard are rigid high-temperature fibrous insulation 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 furnace linings in high-temperature electrically heated furnaces. The insulation boards are suitable for application temperatures up to **1800 °C**.



UltraBoard are being very widely used in heat processing equipment in e.g. the production of various technical ceramics, ceramic powders (oxides/non-oxides), electronic parts and in the dental industry.

Keeping abreast of demands for not only larger sizes but also complicated shapes or cuttings, 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.

YOUR BENEFITS WITH ULTRABOARD AT A GLANCE

- ✓ 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

MATERIAL PROPERTIES OF ULTRABOARD

UltraBoard	1500-300	1600-400	1650-400*	1750-400*	1750-400P	1750-400PS	1850-400P	1850-500
SiO ₂ [%]	37	35	33	28	22	15	20	15
Al ₂ O ₃ [%]	63	65	67	72	78	85	80	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/m ³]	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 change, 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 pre-fired boards. Pre-firing qualities: low fired (LF), middle fired (MF), high fired (HF).
Densities are available up to 700 kg/m³.

* Contain RCF (ASW).

AVAILABLE TYPES OF ULTRABOARD

	1500-300, 1600-400	1650-400 – 1850-400P	1850-500
Standard thickness	25, 40, 50, 100 mm	20, 25, 40, 50, 100 mm	20, 25, 40, 50 mm
Standard dimension	900 mm x 600 mm*		

* Customised dimensions on request.