RAMUL and RAMUL-HT

Porous Ceramics for Firing Auxiliaries and Kiln Components up to 1,700 °C

Product Info

- High temperature and creep resistant
- Long-term application up to 1,700 °C
- Up to 30 % energy savings

TRADITION
PROGRESS
INNOVATION

Rauschert

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RAMUL und RAMUL-HT for Firing Auxiliaries and Kiln Components

Benefits and properties

- Up to 30 % energy savings
- Very good creep strength
- High temperature resistant up to 1,700 °C
- Outstanding thermo-mechanical properties

Field of application

- Saggars
- Firing props
- Kiln components

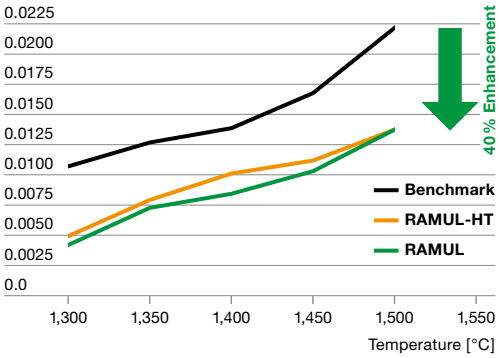
Rauschert's newly developed porous ceramics RAMUL and RAMUL-HT are perfect for kiln furniture solutions. Using diverse raw materials and new procedures, Rauschert was able to lower the mass of those materials RAMUL and RAMUL-HT and hence the thermal capacity was also lowered. At the same time, the improved thermo-mechanical properties allow the products to have thinner walls without the loss of mechanical strength. The creep and thermal shock resistance are outstanding. Applying those materials as firing auxiliaries, the energy consumption as well as the CO2 emissions can clearly be reduced.

The Material Index I was established by the Fraunhofer Institute ISC as a quality criteria of high temperature materials for better comparison of materials with different densities. A lower material index means less energy expenditure with reduced creep tendency at the same time.

Different shapes are available for RAMUL and RAMUL-HT. Custom-made production is possible upon request.

Properties		RAMUL	RAMUL-HT
Bulk density	g/cm^3	2.1	2.2
Porosity	%	30	37
Max. operating temperature	°C	1,600	1,700
Al_2O_3 content	%	79.70	88.40
SiO_2 content	%	19.80	11.16
Bending strength 20 °C (3-point)	N/mm^2	31	25
Material Index I at 1,500 °C		0.0138	0.0136

Mullite measurements: Fraunhofer-Center HTL ThermoOptical Measuring Device (TOM_air)



Material Index $I = \frac{\rho \cdot cp}{\sqrt[3]{\eta}}$

ρ = Bulk density
cp = Specific heat capacity
η = Uniaxial viscosity

v-card

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Rauschert at a glance

Technical ceramics

Plastic molded parts

Ignition systems & heating elements

Energy & engineering

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