

TECHNICAL CERAMICS

RAMUL-HT

high temperatur
porous alumina



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Porous ceramic kiln furniture and furnace components for demanding applications up to 1.600°C.

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PRODUCT PROPERTIES

RAMUL-HT

The newly developed porous ceramic RAMUL-HT from Rauschert are used, among other applications, **as kiln furniture and furnace components**. By using new materials and processes, both the mass and the heat capacity of these materials have been reduced. At the same time, the improved thermomechanical properties make it possible to **produce thinner-walled products** without any loss of mechanical strength. Their creep **resistance and thermal shock resistance** have proven to **be excellent**. When used as kiln furniture, they can significantly **reduce energy consumption** and thus also **lower CO₂ emissions**.

The material index „I“ was introduced by Fraunhofer ISC as a quality index for high-temperature materials in order to enable a better comparison of materials with different densities. A lower material index indicates **lower energy consumption** combined with a **reduced tendency to creep**.

Both materials are available in a variety of geometries. Customized designs can be provided on request.

ADVANTAGES AND PROPERTIES

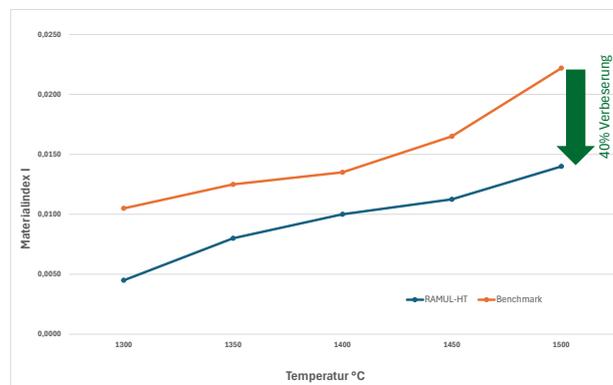
- up to 30% energy savings
- excellent creep resistance
- high-temperature resistance up to 1,700°C outstanding thermomechanical properties your costs low

APPLICATION EXAMPLES

- saggars
- kiln supports
- furnace components

| TYPICAL VALUES | RAMUL-HT |
|---|---------------|
| Material base | Alumosilikate |
| Open porosity % | 37 |
| Density [g/cm ³] | 2,2 |
| max. service temperature [°C] | 1700 |
| Al ₂ O ₃ -content % | 88,40 |
| SiO ₃ -content % | 11,16 |
| Flexural strength at 20°C (3-point) N/mm ² | 25 |
| Material index I at 1,500°C | 0,0136 |

Mullite measurements: Fraunhofer Center HTL
Thermo-optical measuring method (TOM_{air})



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$$\text{Materialindex } I = \frac{\rho \cdot c_p}{\sqrt[3]{\eta}}$$

ρ = Rohdichte
 c_p = spezifische Wärmekapazität
 η = uniaxiale Viskosität

Your Inquiry – Fast & Precise Quotation

For a fast and precise quotation, please send us a drawing of the component along with details on quantities and tolerances. We will be pleased to advise you personally.

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