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Rauschert



TECHNICAL CERAMICS

# RAMUL-HT

## high temperatur porous alumina

Innovation meets tradition.

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## high temperatur porous alumina

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

TECHNICAL CERAMICS

## PRODUCT PROPERTIES

### RAMUL-HT

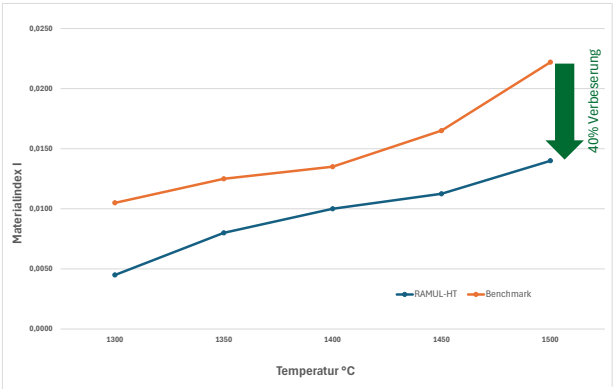
The newly developed porous ceramic RAMUL-HT from Rauschert are used, among other applications, **as kiln furniture and furnace components**. By using new materials and processes, both the mass and the heat capacity of these materials have been reduced. At the same time, the improved thermomechanical 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 $CO_2$ 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.

| TYPICAL VALUES | RAMUL-HT |
|---|---|
| Material base | Alumosilikate |
| Open porosity % | 37 |
| Density [g/cm³] | 2,2 |
| max. service temperature [°C] | 1700 |
| $Al_2O_3$-content % | 88,40 |
| $SiO_3$-content % | 11,16 |
| Flexural strength at 20°C (3-point) N/mm² | 25 |
| Material index I at 1,500°C | 0,0136 |

Mullite measurements: Fraunhofer Center HTL
Thermo-optical measuring method (TOM_air)




## ADVANTAGES AND PROPERTIES

- up to 30% energy savings
- excellent creep resistance
- high-temperature resistance up to 1,700°Coutstanding
- thermomechanical propertiesyour costs low

## APPLICATION EXAMPLES

- saggers
- kiln supports
- furnace components



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

ρ = Rohdichte
cp = spezifische Wärmekapazität
η = uniaxiale Viskosität

All information, technical specifications and illustrations contained in this datasheet have been compiled with the utmost care. However, no liability is accepted for the accuracy, completeness or currency of the information provided.

**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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