

Material Discription

The material is available as a ready to press granulate, which can be pressed uniaxial or isostatic, here it has to be chosen a pressure greater than 100 MPa. Pressed preforms have good strenght, which allows machining using a CNC machine in this form. After processing, the component can be sintered to get final densification.

Product Number:

IKH 12204

Grain Size Distribution

Grain Size	250 - 45 μm
------------	------------------------

Physical Properties

Property	Value
Primery grain size d_{50}	< 0,8 μm
Specific surface, BET	6-8 g/m^2
Granule size d_{100}	< 150 μm
Weight loss	3,5-4,0 %
Sintered density	< 5,60 g/cm^3

Sintering Programm

From room temperature with 1–2 K/min to 500 °C, hold for 2–4 h on debinding temperature, with 2–3 K/min to 1720 °C – 1740 °C, hold for 4 h at sintering temperature, cool it down to 1000 °C with 2–3 K/min. Cool it down to room temperature with 25–30 °C/h.

Chemical Composition

Property	Value
ZrO ₂	> 95,5 %
MgO	~ 3,0 %
SiO ₂	< 0,1 %
Fe ₂ O ₃	< 0,1 %
Na ₂ O	< 0,1 %
TiO ₂	< 0,1 %

Delivery & Storage

Shipped in cardboard boxes of 25 kg with Inliner, shrink wrapped on Euro-Pallets of 500 kg. The spray granulate must be stored absolutely in dry and cool place. The storage in the sun or at temperatures below 3 °C (Frost) must be avoided! Otherwise, there is a massive risk of irreversible negative processing- and property-changes.