

Grain Size Distribution

d ₁₀	< 40 μm
d ₅₀	~ 60 μm
d ₉₀	> 90 μm

Chemical Composition

Al ₂ O ₃	< 0.3 %
ZrO ₂	~ 94.0 %
Y ₂ O ₃	~ 6.0 %
TiO ₂	< 0.1 %
SiO ₂	< 0.1 %
Na ₂ O	< 0.1 %
MgO	< 0.1 %
HfO ₂	< 2.0 %

These properties are typical but do not constitute specifications

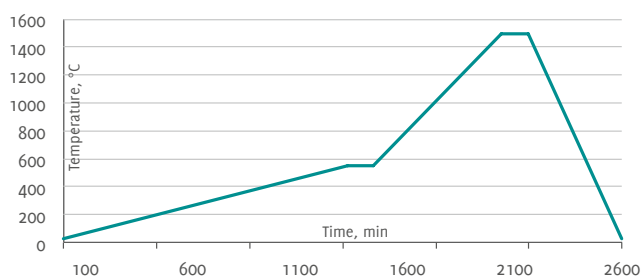
Physical Properties

Green Density ¹⁾	3.1 g/cm ³
Sintered Density ¹⁾	6.1 g/cm ³
Apparent Density	1.39 g/cm ³
Flexural Strength	—
Shrinkage	~ 22 %
Δm ²⁾	~ 7 %
Color	off white

1) at 200 MPa 2) weight loss after sintering

Recommended Sintering Conditions

Sintering Temperature	1500 °C
Debinding	550 °C



The shown debinding and sintering cycles are exemplary. More information on request.

Applications

Technical Ceramics, Wear Protection, Isolation Rings, Bearing Bushes

Advantages.

- Excellent powder flowability and pressing behavior for low variance of die filling and green density.
- High dimensional accuracy after sintering, low dimensional scrap rate.
- Improved binder system with non-sticking properties on die surface. Reduced down time for mold cleaning.
- Formulation with eco-friendly carbon precursor. No use of phenolic resin. Clean and safe debinding process without toxic emissions. Reduced deposits inside debinding equipment provide for reduced maintenance down time.
- Reduced pressure to obtain the required green density. Reduced cost factor related to tool wear.

