IKH 630
Y_2O_3 5N RTP

Grain Size Distribution

d_{10}	< 20 µm
d_{50}	~80 µm
d_{90}	> 160 µm

Chemical Composition

Y_2O_3	99,999 %
SiO_2	< 0.001 %
Na_2O	< 0.043 %
Fe_2O_3	< 0.005 %

These properties are typical but do not constitute specifications

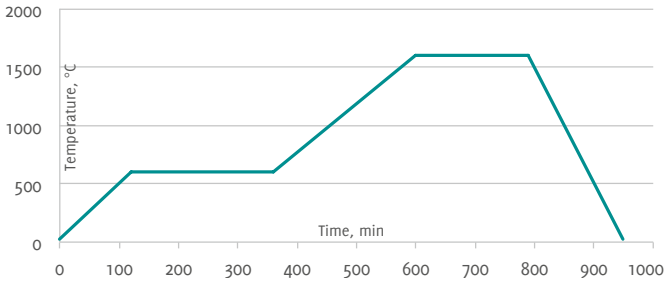
Physical Properties

Green Density [1)]	2.98 g/cm³
Sintered Density [1)]	4.98 g/cm³
Apparent Density	1.6 g/cm³
Flexural Strength	—
Shrinkage	~20 %
Δm [2)]	~13 %
Color	white

1) at 200 MPa 2) weight loss after sintering

Recommended Sintering Conditions

Sintering Temperature	1600 °C
Debinding	600 °C



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

Applications

Semiconductor Applications, for Cold Isostatic Pressing, Green Machining, Parts with Complex Geometry

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.

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