

## STARCERAM<sup>®</sup> Z-Smile

<b>Chemical Formula</b>	ZrO <sub>2</sub> / Y <sub>2</sub> O <sub>3</sub> / Al <sub>2</sub> O <sub>3</sub>
<b>Chemical Name</b>	Yttrium stabilized tetragonal zirconium dioxide
<b>Description of Product</b>	Presintered Blanks made of zirconium dioxide for dental use Typ II, Class 5 according to EN ISO 6872

Colour	White
Translucence	High translucent

### Chemical Characteristics

ZrO <sub>2</sub> / HfO <sub>2</sub> / Y <sub>2</sub> O <sub>3</sub>	>	99.0	wt%
Y <sub>2</sub> O <sub>3</sub>	9.30 ±	0.30	wt%
HfO <sub>2</sub>	<	5.0	wt%
Al <sub>2</sub> O <sub>3</sub>	<	0.1	wt%
Fe <sub>2</sub> O <sub>3</sub>	<	0.01	wt%
Density	>	6.0	g/cm <sup>3</sup>
4-Point Bending Strength	600 ±	100	MPa
Young's modulus		210	GPa
Thermal expansion		10.4	10 <sup>-6</sup> 1/K
Open porosity	none		

### Radio activity

Activity <sup>238</sup> U	<	1.0	Bq/g	EN ISO 6872
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### Biocompatibility and chemical solubility

Cytotoxicity ISO	inoffensive		EN ISO 10993 / EN ISO 9363
Chemical analysis	< 2000	µg/cm <sup>2</sup>	EN ISO 6872

## Product Description and Applications

Presintered blanks from tetragonal stabilized zirconium oxide are a semi-finished ceramic product with special properties for medical applications. The blanks offer an excellent ability for machining with CAD/CAM milling systems. They are suitable for the fabrication of crowns and bridges with up to 3 units in monolithic version or as framework for coating with ceramic. The high translucency and the good biocompatibility are outstanding characteristics and support the suitability for medical applications.

## STARCERAM® Z Material Example of presintered products



## Packaging

STARCERAM® Z-Smile products are individually packed, depending on size packaging according to transport regulations.

## Storage and Handling

Handle with care! Ceramic products may break if not treated properly. Storage and handling are subjects to the rules and regulations in the country of use.

## Hazards identification in Advertising (REGULATION (EC) No 1272/2008 Article 48)

none.

## Documentation

An inspection document in accordance with EN 10204 is supplied with every shipment.

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