



AMANN GIRRBACH

7.1.3 TECHNICAL DATA SHEET

Manufacturer/
Supplier: Amann Girrbach AG
Herrschaftswiesen 1
6842 Koblach
Austria

Produkt: Ceramill Zi Blanks

Produkttyp: Zirconia CAD/CAM ingots for the production of dental restorations. The material gets milled in a presintered condition and sintered to the final density and properties in the Ceramill Therm furnace (Heating rate 8°C/min; T_S 1450°C; t_H 2h).

Product shape: Different shapes available

Material type: ZrO₂ Y-TZP-A
(Y₂O₃-stabilized, tetragonal zirconia)

CE-Certification: CE₀₁₂₃

Veneering: Veneerable with conventional ZrO₂ veneering ceramics

Composition (Wt-%):

ZrO ₂ + HfO ₂ + Y ₂ O ₃	≥ 99,0
Y ₂ O ₃	4,5 – 5,6
HfO ₂	< 5
Al ₂ O ₃	< 0,5
other Oxides	< 0,5

Mechanical, physical und chemical properties (after final sintering 1450 °C/2 hrs):

Flexural Bending strength (3-Point)	1200 ±150	MPa
Flexural Bending strength (4-Point)	1000 ±150	MPa
Modulus of Elasticity	> 200	GPa
Grain size	≤ 0,6	µm
Density	≥ 6,05	g/cm ³
Hardness	1300 ±200	HV10
Open Porosity	0	%
Coeff. of thermal Expansion (25-500 °C)	10,4 ± 0,5	*10 ⁻⁶ /K
Chem. Solubility	< 5	µg/cm ²
Radioactivity	< 0,2	Bq/g

The properties of Ceramill Zi Blanks correspond to standards ISO 6872¹⁾ and ISO 13356²⁾ after final sintering.

¹⁾ ISO 6872 „Dental Ceramics“

²⁾ ISO 13356 “Implants for surgery – Ceramic materials based on yttria-stabilized tetragonal zirconia (Y-TZP)“

Koblach, 2015-10-20

AMANN GIRRBACH AG

Research & Development
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