



MATERIAL DATA SHEET

HiPer[®]-DENT-Z Zirconia

HiPer[®]-DENT-Z ZrO₂

Radioactivity

Activity Concentration U238 ≤ 1 Bq/g

Density ≥ 6 g/cm³

Chemical Composition

ZrO₂/HfO₂ ≥ 94 wt-%
Y₂O₃ 4,7-5,3 wt-%
Coloring Oxides (each) ≤ 0,35 wt-%
Al₂O₃ ≤ 0,35 wt-%

Modulus of Rupture

Biaxial > 800 MPa
Four-point > 1000 MPa

Phase Composition Monoclinic Phase < 10 %

**Coefficient of Thermal Expansion
(20-500°C)** 10,5-11,5 * 10⁻⁶K⁻¹

Sintering Conditions

Heating Rate Depending on size of frame-
work, loading of kiln
T_{max} 1450 °C
Dwell Time at T_{max} 2 h



Material complies with requirements of EN ISO 6872:2009

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