

Physical Properties & Test Methods

Norm	Chapter	Property	Requirement	Typical Values
13356	4.1	Density [acc.. ISO 18754 or EN 623-2]	$\geq 6,00$ [g/cm ³]	6,05
13356	4.3	Microstructure: Mean linear intercept [acc.. EN 623-3 or ASTM E112]	$\leq 0,4$ [μ m]	0,35
6872	4.4	Biaxial Bending Strength	≥ 800 [MPa]	1400
13356	4.6	Zycl. Fatigue	≥ 320 [MPa]	Successful, no failure
13356	4.7	Radioactivity	≤ 200 [Bq/kg]	15
6872	7.4	Coefficient of Expansion	Bestimmung [10^{-6} K ⁻¹]	10
6872	7.6	Chem. Solubility	2.000 [μ g/cm ²]	12

Chemical Composition

NORM	KAPITEL	MERKMAL	ELEMENTE – OXIDE	ANFORDERUNG	Typische Werte
13356	4.2	Composition in mass %	ZrO ₂ + HfO ₂ + Y ₂ O ₃	$\geq 99,0$	99,90
13356			Y ₂ O	$> 4,5$ bis $\leq 6,0$	5,50
13356			HfO ₂	≤ 5	1,90
13356			Al ₂ O ₃	$\leq 0,5$	0,002
13356			other oxides	$\leq 0,5$	$\leq 0,5$

[*] Accreditation letter available on demand

Notified Body: TÜV Nord GmbH **CE 0044**

These properties were measured on test samples. The values are typical material properties and may vary according to product configuration, geometry and manufacturing process.