Technical Data
Nacera® Pearl 4.5

Physical Properties & Test Methods

Norm	Chapter	Property	Requirement	Typical Values
13356	4.1	Density [acc.. ISO 18754 or EN 623-2]	≥ 6,00 [g/cm³]	6,05
13356	4.3	Microstructure: Mean linear intercept [acc.. EN 623-3 or ASTM E112]	≤ 0,4 [µm]	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 [µg/cm^2]	12

Chemical Composition

NORM	KAPITEL	MERKMAL	ELEMENTE – OXIDE	ANFORDERUNG	Typische Werte
13356	4.2	Composition in mass %	$ZrO_2 + HfO_2 + Y_2O_3$	≥ 99,0	99,90
13356			Y_2O	> 4,5 bis ≤ 6,0	5,50
13356			HfO_2	≤ 5	1,90
13356			Al_2O_3	≤ 0,5	0,002
13356			other oxides	≤ 0,5	≤ 0,5

[*] Accreditation letter available on demand

Notified Body: TÜV Nord GmbH **cє 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.

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