

EIGENSCHAFTEN

- ▶ Chemische Formel: Al_2TiO_5
- ▶ Chemische Bezeichnung: Aluminiumtitanat
- ▶ Eigenschaften: Gesintertes Aluminiumtitanat
- ▶ Beschreibung des Produkts: Bauteile hergestellt aus Aluminiumtitanat
- ▶ Farbe: Weiß

CHEMISCHE EIGENSCHAFTEN (TYP.)^{1,2}

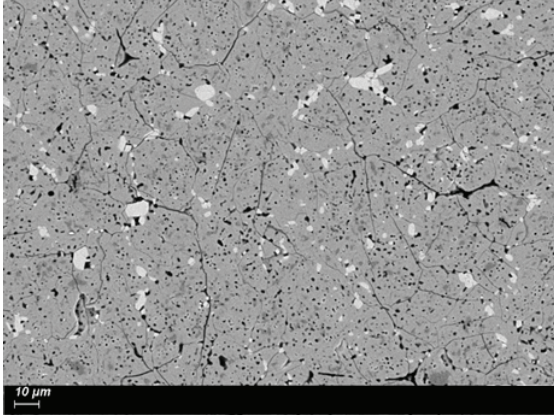
		AT 1203
$\text{Al}_2\text{O}_3 / \text{TiO}_2 / \text{SiO}_2$	[wt%]	> 99
Al_2TiO_5	[%]	85

MECHAMECHANISCHE UND PHYSIKALISCHE EIGENSCHAFTEN DES MATERIALS (TYP.)

		AT 1203
Reinheit	[g/m ³]	3,32
Biegebruchfestigkeit $\sigma_{b4,m}$ (RT) ¹	[MPa]	25
	(1,000°C)	70
	(1,200°C)	80
Vergleichsstärke σ_{ov}	[MPa]	26
Weibull-Modul (RT)	[-]	60
Elastizitätsmodul (RT)	[GPa]	10
Bruchzähigkeit ²	[MPa √m]	3 - 5
Wärmeleitfähigkeit (RT)	[W/mK]	1,4
Wärmeleitfähigkeit (800 °C)	[W/mK]	1,4
Thermische Ausdehnung CTE (RT-1,000 °C)	[x10 ⁻⁶ /K]	1,25
Härte (DPH)	[GPa]	5
Temperaturwechselbeständigkeit R1 (berechneter Wert)	[K]	2000
Max. Arbeitstemperatur	[°C]	1000
Derzeit anwendbar bis zu	[°C]	1300

¹ 4-Punkt-Biegung 40/20 mm

² Normierte Festigkeit bezogen auf das effektive Volumen $V_{eff} = 1 \text{ mm}^3$ und die Bruchwahrscheinlichkeit $FB = 63,2 \%$.

SEM PHOTOMICROGRAPH

AT 1203, 30 μm, 15 kV, 8.9 mm, 500x

PACKAGING

StarCeram® AT products are individually packed, depending on size.
Packaging acc. to transport regulations.

STORAGE & HANDLING

Handle with care! Ceramic products may break if not treated properly. Storage and handling are subject 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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