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Rauschert



TECHNICAL CERAMICS

RAPOX

Dense Alumina products

Innovation meets tradition.

RAPOX

Dense Alumina products

TECHNICAL CERAMICS

PRODUCT PROPERTIES

OUR ALL-ROUNDER RAPOX

Alumina is a very hard material with **good heat conduction and electrical insulation ability**, which can be used stably at high temperatures and in aggressive chemical environments. Depending on the purity of the material and the inner grain structure, it is suitable for a wide range of technical applications.
We offer our alumina at purity levels of 80-99.9%.

APPLICATIONS

Rapox is an alumina ceramic that can be used up to 1600 °C. It is characterized by **high mechanical strength, electrical breakdown strength**, and at the same time the **highest temperature resistance**.

AREAS OF APPLICATION INCLUDE:

- Sensor tips
- High Voltage Insulators
- Thermocouple tubes
- Thermocouple protection tubes
- Thermal sensor housing (also closed on one side)
- Fuses
- Crucibles and laboratory crucibles
- Wear-resistant ceramics
- Isolation ceramic for ignition components

YOUR BENEFITS

High-volume manufacturing processes possible
very good availability and delivery times

Prototyping via 3D printing possible
fast verification of the application in your company

An all-round material with many areas of application
No extensive raw material research necessary

A feature-related long service life
safety and reliability for you and your customer

Hybrid components in ceramic-plastic are possible - cost-cutting
a better market performance for you



TYPICAL VALUES	RAPOX 80	RAPOX 95	RAPOX 96	RAPOX 100
Material base	Alumina 78%	Alumina 95%	Alumina 96%	Alumina >99,9
Density [g/cm³]	3,2	3,5	3,7	3,9
Flexural Strength [MPa]	200	220	250	>300
Coefficient of linear expansion 20-600°C $10^{-6}K^{-1}$	6-8	6-8	6-8	7-8
thermal conductivity [W/mK]	15	18	24	30
Thermo shock resistance	good	good	good	good
Max.operation temperature	1350	1400	1500	1900
Open porosity %	0	0	0	0

All information, technical specifications and illustrations contained in this datasheet have been compiled with the utmost care. However, no liability is accepted for the accuracy, completeness or currency of the information provided.

Your Inquiry – Fast & Precise Quotation
For a fast and precise quotation, please send us a drawing of the component along with details on quantities and tolerances. We will be pleased to advise you personally.

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