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PRODUCT CATALOG / Grinding Jars

Premium Alumina (Corundum) Milling Jar

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TENCAN / PRODUCT INFORMATION

Premium Alumina (Corundum) Milling Jar

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A high-alumina ceramic milling jar with published alumina content of at least 99.5%.

Overview

A high-alumina ceramic milling jar with published alumina content of at least 99.5%. Compare its material properties and dimensions when selecting a ceramic contact system for the sample.

How it works

The jar working surface forms part of the contact system between sample, media and mill. Material selection should balance the required mechanical action with chemical compatibility and the acceptable contribution from wear.

A material temperature reference does not rate the complete jar, seal, clamp or mill for high-temperature operation. Ceramic jars still require careful handling and inspection.

Key features

- Published alumina content: at least 99.5%; reference density: at least 3.75 g/cm³.
- Published material references include Mohs hardness 9 and flexural strength at least 350 MPa.
- A standard-alumina material comparison helps define the grade requested in the quotation.

Specifications

Published catalog references are reproduced below. Nominal volume is not a sample-mass rating. Confirm the selected model, material grade, electrical supply and complete supplied configuration in the quotation.

Published dimensions and configurations — 1

Model / nominal volume	External diameter (mm)	Height (mm)
50mL	56	70
100mL	70	72
250mL	95	88
500mL	106	112
1000mL	133	131
1500mL	132	141
2000mL	132	173

Published material comparison (not a grinding trial)

Property	Premium alumina	Standard alumina reference
Alumina content	≥99.5%	≥98.5%
Flexural strength	≥350MPa	≥250MPa

Additional published material references

Property	Premium alumina reference
Alumina content	≥99.5%
Density	≥3.75 g/cm³
Mohs hardness	9
Flexural strength	≥350 MPa

Material properties are published references, not a certificate for a supplied batch or a complete assembly temperature/pressure rating.

Applications

Ceramic and materials-development studies where the supplied alumina grade and aluminium transfer are relevant.

Suitability depends on the actual sample, process and analytical requirements; a listed application is not a guaranteed final-particle-size result.

Accessories and options

Specify alumina grade, size, lid and holder compatibility. Discuss any nonstandard drawing or vacuum proposal separately.

State the required grade, quantities, drawings and destination when requesting a quotation. Confirm what is included, the document requirements, packing and commercial terms; no generic delivery time or universal custom capability is assumed.

Compare milling jars · Compare grinding media · Air-cooled systems · Ultrasonic-assisted systems

Selection guidance

Match premium alumina (corundum) to the sample chemistry and the elements or residues that matter to the analysis. Then confirm the dimensions, complete loaded mass and operating arrangement against the selected mill.

Work through the selection guide · Request a configuration quotation

Trials and comparisons

Material/application reference

Alumina powder

XQM; exact model not recorded · Water-based wet milling

- Sample: 100 g
- Jar: 500 mL corundum jar; alumina media recorded

- Recorded sampling / duration: 60 and 120 min samples

Recorded observations

Observation	Sampling time	D50 (µm)	D90 (µm)
Recorded sample 1	60 min	8.28	15.11
Recorded sample 2	120 min	5.19	10.90

The record identifies corundum/alumina material, not the premium grade. No premium-versus-standard performance advantage is inferred. Two starting grades appear in the entry, so no starting distribution is assigned to these measured samples. Jar/media grade, interruption history and measurement method are unspecified. This supports a material-level comparison of recorded time points, not proof of a premium-jar advantage.

How to plan a fair comparison

For a premium alumina (corundum) comparison, use matched sample portions and the same measurement/dispersion method. State the jar, media, mass/volume loading basis, processing schedule and contamination measurements. A change in material grade alone is not established as the cause of a result.

These anonymous records are not operating instructions. Measurement and dispersion methods are not fully specified in the test summaries; results apply to the reported samples and conditions.

Discuss a matched sample evaluation

Plan your milling configuration.

TENCAN develops and manufactures planetary milling equipment, with application support in Changsha and a production base in Wushi, Hunan.
Share your material, batch size, target particle size and contamination limits. Our team can help confirm the mill, jars, media and electrical requirements, or arrange a sample grinding evaluation.
Reference information applies to the described models and conditions. Confirm the final specification and supplied accessories with TENCAN before ordering.
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Product page https://www.planetaryballmill.com/milling-accessories/jars/premium-corundum.html
Sample grinding www.planetaryballmill.com/sample-testing/