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PRODUCT CATALOG / Grinding Media

Alumina (Corundum) Grinding Balls

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Alumina (Corundum) Grinding Balls

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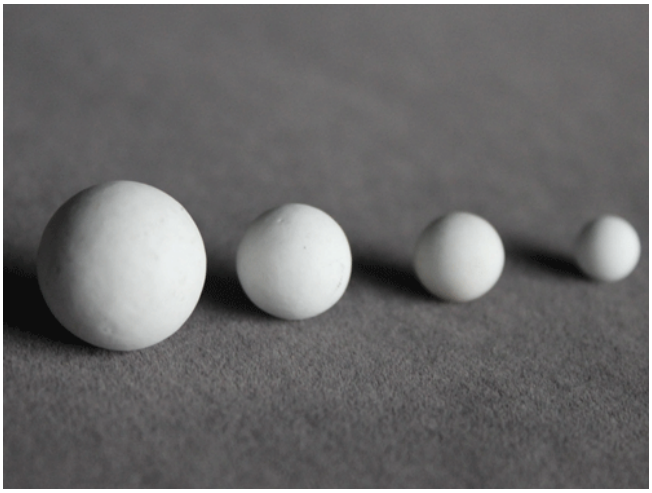

Alumina ceramic media for compatible nonmetallic powder processing, mixing and dispersion.

Overview

Alumina ceramic media for compatible nonmetallic powder processing, mixing and dispersion. Select the alumina grade and diameter rather than treating every white ceramic ball as equivalent.

How it works

The grinding media 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.

Alumina wear can contribute aluminium. Material hardness does not establish the operating temperature of a complete milling setup.

Key features

- The catalog lists a broad 0.5–50 mm reference diameter range.
- Density depends on the supplied material grade.

- Assess alumina transfer and media wear using the actual jar and sample.

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 media material references

Property	Reference
Material	alumina (corundum)
Composition / grade	α-Al_2O_3 ≥90% (published grade reference)
Diameter range	0.5–50 mm
Density	3.6–3.9 g/cm³
Hardness	Mohs 9
Supplied size distribution	Specify the required diameters and quantities
Grade / batch documentation	Confirm with the quotation; material references are not a batch certificate

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

Applications

Compatible ceramic raw materials, quartz, feldspar and refractory-material studies.

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 the media grade, diameter mix, total charge and required documentation against the actual jar and sample. Confirm custom requirements in the quotation.

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 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

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 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/media/corundum.html
Sample grinding www.planetaryballmill.com/sample-testing/