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PRODUCT CATALOG / Grinding Jars

Polyurethane Milling Jar

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A polyurethane milling jar for compatible mixing, dispersion and powder-processing studies.

Overview

A polyurethane milling jar for compatible mixing, dispersion and powder-processing studies. The polymer working surface is useful to evaluate when contact with a bare metal jar is undesirable.

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.

Polyurethane formulation, liquid compatibility, temperature and wear limits must be checked. It is not interchangeable with PTFE or nylon simply because all are polymers.

Key features

- A rounded internal form with a polyurethane working surface.
- The dimension table lists nominal volumes from 100 mL to 10 L.

- Stainless-steel outer support is listed for 1.5–10 L versions.

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)	Internal diameter (mm)	Height (mm)
100mL	68	53	69
250mL	98	74	90
500mL	106	87	104
1L	132	105	135
1.5L	132	116	161
3L	159	139	223
5L	192	168	251
10L	243	219	286

Applications

Compatible electronic materials, pigments, slurries and laboratory mixing applications.

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 required PU formulation, size, support construction, lid and the intended media/material combination.

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 polyurethane (PU) 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

QXQM; exact capacity not recorded · Water-based wet mixing; horizontal configuration recorded

- Sample: 476.5 g
- Jar: 1 L PU jar; alumina media
- Recorded sampling / duration: 6 h

Recorded observations

Recorded item	Value
Sample mass	476.5 g
Jar volume	1 L
Recorded duration	6 h
Particle-size result	Not reported

The jar and media were supplied for the trial and their grades/part numbers are unidentified. No D50, D90 or mixing-uniformity result is reported; completion of a procedure is not a verified performance outcome.

How to plan a fair comparison

For a polyurethane (PU) 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/polyurethane.html>

Sample grinding www.planetaryballmill.com/sample-testing/