

KM 100 MORTAR GRINDER



GRINDING, MIXING, TRITURATION

RETSCH mortar grinders are used for the fine grinding as well as the mixing and trituration of soft to hard organic and inorganic substances. The most varied materials, including fluid pastes, can be processed in batches of up to 300 ml with a max. initial grain size of up to approx. 10 mm (depending on the hardness).

These mortar grinders are particularly suitable for the even trituration of homoeopathic and pharmaceutical products.

ADVANTAGES

- high final fineness
- closed grinding chamber with window
- choice of 5 grinding set materials
- dry and wet grinding
- high degree of homogenisation
- loss-free, reproducible processing
- 0 – 60 min. timer and continuous operation
- robust, low-maintenance design to European CE safety standards
- 2-year warranty

FEATURES

application	Dry and wet grinding, mixing and trituration
feed stock	Soft, hard, brittle, pasty
feed size	< 10 mm
final fineness	< 36 µm
sample volume	50 – 300 ml

SELECTION OF GRINDING SETS

The material for the grinding set is selected primarily according to the degree of hardness of the feed material and a possible influence from the ground material on the subsequent analysis, or, as the case may be, further use. For soft up to medium-hard or pasty materials sets of hard porcelain or sintered corundum are generally sufficient.

For processing without heavy metals agate or zirconia are recommended. Steel grinding sets have proven their suitability for coarser applications. In place of the standard scraper of vulcollan beechwood scrapers can be supplied, for example for the pharmaceutical sector.



KM 100 TECHNOLOGY

Mortar grinders grind and triturate by means of pressure and friction. The material to be processed is fed by a scraper into the rotating mortar between mortar and pestle. This forced feed process ensures that the whole feed quantity is repeatedly subjected to the grinding and trituration process and is intensively mixed. The pestle is arranged off-centre to the mortar; through the contact with the rotating mortar or material being ground it rotates automatically along with the mortar. The weight of the pestle and the adjustable spring pressure acting on its axis create the grinding pressure.

The mortar dish is driven by a geared motor (370 Watt with a rotational speed of 100 min⁻¹). The motor is provided with a cut-out switch to protect against overloading. When the grinding chamber is opened, a safety switch cuts out the motor automatically.

BASIC MATERIAL COMPOSITION

Material	Composition, approx.	Hardness
Agate	99.9% SiO ₂	7.0 acc. to Mohs
Hard porcelain	61.0% SiO ₂ , 34.0% Al ₂ O ₃	8.0 acc. to Mohs
Sintered corundum	99.7% Al ₂ O ₃	9.0 acc. to Mohs
Zirconia	97.0% ZrO ₂	8.5 acc. to Mohs
Special steel 2	86.0% Fe, 11.5% Cr	approx. 60 HRC

ORDERING DATA

MORTAR GRINDER TYPE KM100 (without mortar and pestle)		ARTICLE NO.
Type KM 100 for 3 x 400 V, 50 Hz		20.453.0001
Type KM 100 for 230 V, 50 Hz		20.453.0002
ACCESSORIES		ARTICLE NO.
Mortar	Hard porcelain	02.460.0003
Pestle	Hard porcelain	02.461.0003
Mortar	Sintered corundum	02.460.0004
Pestle	Sintered corundum	02.461.0004
Mortar	Special steel	02.460.0005
Pestle	Special steel	02.461.0005
Mortar	Agate	01.460.0059
Pestle	Agate	02.461.0006
Mortar	Zirconia	02.460.0024
Pestle	Zirconia	02.461.0029
Scraper of beechwood		05.008.0018
Replacement scraper of vulcollan		05.862.0008

NOISE CHARACTERISTICS (Noise measurement to DIN 45635-31-01 Class 3)

Workplace-related emission value	L _{pA eq} = 75 dB (A)	Feed material, size: Silica sand 0.5 - 1 mm
Sound power level	L _{WA} = 81 dB (A)	

DIMENSIONS AND WEIGHTS

W x H x D	approx. 400 x 700 x 580 mm
Weight	approx. 98 kg (without grinding set)

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