

## Planetary Ball Mill PULVERISETTE 7 *premium line*, FRITSCH



WWGF3017



### Planetary Micro Mill PULVERISETTE 7 *premium line*

Ideal for high-performance grinding down into the nano range of hard, medium-hard, brittle and fibrous materials with particularly short grinding time – dry, in suspension, or under inert gas in nanotechnology, geology, mineralogy, metallurgy, ceramics, material research, mechanical alloying/activating, pharmaceuticals, chemistry, biology, and sample preparation for analysis. Also ideally suited for highly-efficient mixing and homogenisation of emulsions and pastes.

Grinding bowls and balls are available in different sizes to perfectly match the sample volume and the desired final fineness, as well as in different materials – the best protection against undesired contamination.

Sunken grinding bowls and the unique SelfLOCK grinding bowl clamping, the check of the grinding bowl fastening inside the mill, the blockage in the event of impermissible operating states or imbalance, and the automatic bowl detection guarantee maximum safety.

#### Technical Data:

|                                     |                                                   |
|-------------------------------------|---------------------------------------------------|
| Max. feed size:                     | 5 mm                                              |
| Max. sample quantity:               | 60 ml                                             |
| Final fineness:                     | < 100 nm                                          |
| Rotational speed of main disk:      | 100 – 1100 rpm                                    |
| Rotational speed of grinding bowls: | up to 2200 rpm                                    |
| Supply requirements:                | 100 – 120 / 200 – 240 V/1~, 50 – 60 Hz, 1200 Watt |
| Dimensions (W x D x H):             | 40 x 58 x 36 cm                                   |
| Weight net:                         | 44 kg                                             |



| Article                                                   | Order No.   |
|-----------------------------------------------------------|-------------|
| ① Planetary Micro Mill PULVERISETTE 7 <i>premium line</i> | 10 98 00750 |

Grinding bowls and grinding balls must be ordered additionally. Software MillControl for automatic control of the Planetary Micro Mill PULVERISETTE 7 *premium line*, and validation of the grinding process available on request.

For fast high-tech grinding of larger sample quantities (up to 450 ml) down to the nano range, the Planetary Mill PULVERISETTE 5 *premium line* is available.

### ② Grinding bowls for Planetary Micro Mill PULVERISETTE 7 *premium line*

| Material                                    | Volume ml   |             |             |  |
|---------------------------------------------|-------------|-------------|-------------|--|
|                                             | 20          | 45          | 80          |  |
|                                             | Order No.   | Order No.   | Order No.   |  |
| Hardened, stainless steel <sup>1)</sup>     | 10 98 05498 | 10 98 05497 | 10 98 05496 |  |
| Sintered corundum <sup>1)</sup>             | 10 98 05598 | 10 98 05597 | 10 98 05596 |  |
| Zirconium oxide <sup>1)</sup>               | 10 98 05698 | 10 98 05697 | 10 98 05696 |  |
| Hardmetal tungsten carbide WC <sup>1)</sup> | 10 98 05798 | 10 98 05797 | 10 98 05796 |  |

<sup>1)</sup> Grinding bowl in a steel casing

Grinding bowls are also available in agate and silicon nitride.

Special gassing lids for grinding in an inert atmosphere and for mechanical alloying as well as the EASY GTM - gas pressure and temperature measuring system for controlling the grinding process due to continuous measurement of gas pressure and temperature on request.

### ③ Grinding balls for Planetary Micro Mill PULVERISETTE 7 *premium line*

| Material                   | Ball Ø mm   |             |             |             |
|----------------------------|-------------|-------------|-------------|-------------|
|                            | 5           | 10          | 15          | 20          |
|                            | Order No.   | Order No.   | Order No.   | Order No.   |
| Hardened, stainless steel  | 10 98 05505 | 10 98 05611 | 10 98 05515 | 10 98 05612 |
| Sintered corundum          |             | 53 98 05651 | 10 98 01506 | 53 98 05652 |
| Zirconium oxide            | 10 98 00527 | 53 98 05751 | 10 98 01527 | 53 98 05752 |
| Hardmetal tungsten carbide | 10 98 00508 | 53 98 05671 | 10 98 01508 | 53 98 05672 |

Grinding balls are also available in agate and silicon nitride.

Grinding balls are also offered in the diameters 0.1 to 3 mm to achieve a fineness down to the nanometer-range.

### Recommended number of grinding balls per grinding bowl for PULVERISETTE 7 *premium line*

| Grinding bowl volume/<br>Useful capacity (sample volume) | 20 ml /<br>1 – 9 ml | 45 ml /<br>3 – 20 ml | 80 ml /<br>10 – 30 ml |
|----------------------------------------------------------|---------------------|----------------------|-----------------------|
| Ball dia.                                                |                     |                      |                       |
| 5 mm                                                     | 80                  | 180                  | 250                   |
| 10 mm                                                    | 10                  | 18                   | 25                    |
| 15 mm                                                    | –                   | 7                    | 10                    |
| 20 mm                                                    | –                   | –                    | 5                     |

