**Planetary Mono Mill**

**Equipment:** Planetary Mono Mill Pulverisette 6 classic line

**No. of Equipment:** UFCH 15

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**Equipment Description**

**Description of equipment:**

The PULVERISETTE 6 classic line is a high-performance Planetary Ball Mill with a single grinding bowl mount and practical, easily adjustable imbalance compensation.

Advantage are particularly easy use and high-energy effect up to 650 rpm. This ensures a constantly high grinding performance with extremely low space requirements for loss-free grinding results even in suspension.

The electronic timer adjustable to one second and the programmable, automated reversing feature ensure precise, consistent reproducibility and grinding of even the smallest samples. At the same time, the PULVERISETTE 6 classic line is ideally suited for mechanical alloying or for mixing and perfect homogenising of emulsions and pastes.

**Specifications and technical features:**

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| --- | --- |
| Milling principle | Impact force |
| Number of milling bowls | 1 |
| Volume of milling bowl | 80, 250, 500 ml |
| Diameter of milling balls | 0,5- 40 mm |
| Maximum particle size of sample | 10 mm |
| Minimum volume of sample | 10 ml |
| Maximum volume of sample | 225 ml |
| Final particle fineness | < 1 μm |
| Milling process | Dry/wet |
| Speed | 100 – 650 rpm |

**Specification of expertise relevant to NanoEnviCz workpackages:**

**WP3**a, **WP6**a,d, **WP7**a,

**Detailed description of expertise**

**Please, specify the main research topics connected with equipment:**

Planetary Mono Mill Pulverisette 6 classic line is suitable for grinding hard to soft materials, dry or in suspension. Due to variety of setting ensure precise, consistent reproducibility and grinding of even the smallest samples.

**Please, specify the secondary research topics connected with equipment:**

**Keywords describing research area:**

Milling, dry/wet, reproducibility of grinding results

**Competence**

**Relevance for applied and industrial research:**

Geology and mineralogy Rock (gravel, sand, minerals)

Ceramics (Porcelain, sintered ceramics, clay, fireclay)

Chemistry (Pesticides, fertilisers, salts, inorganic and organic materials)

Biology (Plants, leaves, freeze-dried samples)

Pharmaceuticals (Ophthalmological agents, gels, creams, extracts, drugs, pastes, dragées, tablets)

Metallurgy (Ores, sinters)

Material technology (Pigments, precious materials, new materials, alloys, mechanical alloying and activating)

**Relevance for fundamental studies:**

Analysis preparation (Spectroscopy, X-ray fluorescence, X-ray structure analysis, chromatography)

**Comments**

Planetary Mono Mill Pulverisette 6 classic line is suitable for grinding variety of hard to soft materials, dry or in suspension. Due to variety of setting ensure precise, consistent reproducibility and grinding of even the smallest samples.