

Result 2



MORTAR GRINDER PULVERISETTE 2

pestle downforce: 12,5 daN

mortar and pestle made of stainless steel

Feed quantity:	10 ml
Feed Size:	< 800 μm
Grinding time:	20 min
Final fineness:	d50 < 2,6 μm
Comments:	Also a Mortar Grinder PULVERISETTE 2 might be capable to achieve the desired fineness.

With a standard setting of downforce and side pressure (1 ring $\hat{=}$ \sim 16 daN), sample starts to stick after a grinding time of 20 minutes.

This uses to happen after the majority of particles reached a fineness of < 20 μm . Interacting forces between fine ground particles will become bigger as their own g-force. Therefore, particles will stick to each other and become compressed by the pestle. These clusters of particles also contain bigger particles which will not be ground any further.

A longer dry grinding time is not possible anymore. Only grinding in suspension might be possible to improve the grinding result.

A fineness of d50 < 2,6 μm has been determined (with Laser Particle Sizer ANALYSETTE 22 Compact) .