

羟磷灰石牙质

行业: Chemistry
进料尺寸: < 10mm
最终精度: d50 <0.6µm
样品量:
研磨建议:



PLANETARY MICRO MILL PULVERISETTE 7 PREMIUM LINE

speed: 850 rpm - sample: Dentina

[搜索](#) [复制](#)

20 ml bowl **made** of zirconium oxide (ZrO₂) with 10x 10 mm ZrO₂ balls

Feed quantity: ~0.45 g
Feed Size: < 2 mm*1
Additive: + 2ml H₂O
Grinding time: 5 min*2
Final fineness: <25 µm*3
Comments: *1: As mentioned in trial 1a, the pieces of up to 10mm have been pre crushed with a hammer.

*2: We added 2ml of water for grinding.

After 5 minutes of grinding, the sample has been ground properly (< 30µm). A change of balls is recommended (see trial 2b).

*3: Checked by optical microscopy.



PLANETARY MICRO MILL PULVERISETTE 7 PREMIUM LINE

speed: 1100 rpm - sample: esmalte

20 ml grinding bowl made of zirconium oxide (ZrO₂) +
30g of 0,5 mm ZrO₂ balls*1

Feed quantity:	~0,45 g
Feed Size:	< 25 µm
Additive:	+ 3ml H ₂ O*2 (∑: 5ml)
Grinding time:	1 h*3
Final fineness:	d50 < 0,56 µm*4
Comments:	*1: After the first pre grinding trial (2a) with 10mm balls, we changed the balls to Ø 0,5mm for fine grinding.

*2: To maintain an optimum grinding viscosity (motor oil like), we added 3ml of water (+ 2ml from trial 1a -- > totally 5ml).

*3: During grinding, the sample use to produce some foam in water (swimming on the surface); this makes it more difficult to check for the proper viscosity.

*4: To determine the fineness, we used our ANALYSETTE 22 NanoTec plus (see Meas. no. 38644 on separate page).

To maintain a better endfineness, a longer grinding or a change of balls (e.g. 0,1mm Ø) is still possible.

Summary: The start size is very big for a 20ml bowl. Therefore, a manual pre crushing (e.g. with a hammer) is required. We recommend grinding minimum 1ml of sample to avoid higher wear off. Afterwards, the sample can be ground with 10mm balls. For fine grinding, the balls need to be switched to smaller size afterwards.