

Task:

Application field: Medicine / Pharmaceuticals

Material: Formed activated charcoal; diameter 2 mm

Feed size: 2-6 mm

Feed quantity: 50 ml (per test)

Material specification(s): hard brittle, dry

Customer requirement(s): < 20 µm

Subsequent analysis: Not defined

Solution:

Selected instrument(s): PM 100 Planetary Ball Mill

Configuration(s): Grinding jar 250 ml, type "C", tungsten carbide (WC);
14 x grinding balls of $\varnothing$ 20 mm, tungsten carbide WC

Parameter(s): Revolution speed 400 rpm; reverse mode (1 min interval)

Time: 30 min.

Achieved result(s): Analysis with HORIBA LA-920 Laser:
Sample 1/4: d₅₀ = 5 µm
Sample 2/4: d₅₀ = 3 µm

Remark(s): The fineness can be increased by an extended grinding time. Higher sample throughputs can be achieved with a Planetary Ball Mill PM 400 which provides 4 milling stations per one grinding cycle.

Recommendation: For the grinding of hard brittle and dry activated charcoals we recommend our Planetary Ball Mill PM 100 according to the conditions mentioned above.