Task:

Application field: Chemistry / Plastics

Material: Bleached sulphite cellulose paper

Feed size: 0-2 mm (after pre-cutting)

Material specification(s): fibrous, medium-hard

Feed quantity: 50 g (= 150 ml per grinding jar)

Customer requirement(s): < 50 - 100 µm

Subsequent analysis: Determination of halogen compounds

Solution:

Selected instrument(s): PM 400 Planetary Ball Mill

Configuration(s): 2 grinding jars 500 ml, zirconia; 8 grinding balls per jar, ø 30 mm zirconia

Parameter(s): Revolution speed 280 rpm

Time: 20 min.

Achieved result(s): < 100 µm, defibration effects, some agglomerates

Remark(s): The pre-cutting was done in the Heavy Duty Cutting Mill SM 2000 with bottom sieve square holes 4 mm. Before starting the fine grinding the jars should be filled completely with cellulose material. After a running time of 5 min. add material again.

Recommendation: For fine grinding of cellulose materials the Planetary Ball Mill PM 400 is suitable under the above mentioned conditions.