Task:

Application field: Chemistry / Plastics

Material: Plastic jetons

Feed size: 1 – 4 mm (after pre-grinding in Cutting Mill SM 100)

Feed quantity: 2.5 g

Material specification(s): elastic, temperature sensitive

Customer requirement(s): < 0.5 mm

Subsequent analysis: Microwave digestion

Solution:

Selected instrument(s): CryoMill

Configuration(s): Grinding jar 25 ml, zirconia for CryoMill, 1 grinding ball Ø 20 mm, zirconia

Parameter(s): Frequency 25 Hz

Time: Automatic pre-cooling
      Grinding 2 cycles 3 min, intermediate cooling 45 s

Achieved result(s): < 0.5 mm

Remark(s): As the original sample is too big to be fed into the 25 ml jar a pre-grinding has to be performed using the Cutting Mill SM 100 with a 4 mm sieve. This can be purchased as a heavy free metal version. Alternatively a manual pre-cutting can take place. The smaller the pre-cut pieces the shorter the fine grinding lasts.

Recommendation: The CryoMill is suitable to grind the sample material under the above mentioned conditions.
The application report is based solely on the processing of the available sample material in the indicated amount. No legal claims shall be derived from this test report.

Subject to technical modification and errors.

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