**Task:**

**Application field:** Chemistry / Plastics

**Material:** Thermoplastic resin

**Feed size:** 135 mm x 63 mm x 23 mm

**Feed quantity:** 1 Piece

**Material specification(s):** temperature sensitive, elastic

**Customer requirement(s):** < 10 mm (to be solved in MEK)

**Subsequent analysis:** GC Gas Chromatography

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**Solution:**

**Selected instrument(s):** Cutting Mill SM 300

**Configuration(s):** 6-disc rotor SM 300, stainless steel; Bottom sieve square holes 20 mm, stainless steel; Bottom sieve square holes 8 mm, stainless steel; Standard hopper

**Parameter(s):** Revolution speed 2000 rpm

**Time:** 30 s pre-cutting; 1 min fine grinding

**Achieved result(s):** Predominantly < 10 mm

**Remark(s):** Due to the extreme temperature sensitivity the sample material has to be cooled and pre-embrittled in liquid nitrogen prior to any grinding step.

**Recommendation:** The Cutting Mill SM 300 is suitable to grind the sample material under the above mentioned conditions.
Pictures of the sample

Fig. 1: Original sample

Fig. 2: Sample after pre-cutting in SM 300, sieve 20 mm

Fig. 3: Sample after fragile grinding in SM 300, sieve 8 mm