**Task:**

- **Application field:** Chemistry / Plastics
- **Material:** Plastic preforms
- **Feed size:** 0-15 mm
- **Feed quantity:** 240 g (40g fine grinding)
- **Material specification(s):** Medium hard, temperature sensitive
- **Customer requirement(s):** 850 µm
- **Subsequent analysis:** GC Gas Chromatography

**Solution:**

| Selected instrument(s): | Cutting Mill SM 300  
Ultra Centrifugal Mill ZM 200 |
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<td>Configuration(s):</td>
<td>SM 300: 6-disc rotor SM 300, stainless steel; Bottom sieve square holes 6 mm, stainless steel; Universal Hopper ZM 200: Push-fit rotor, 12 teeth, stainless steel; Ring sieve trapezoid holes 1 mm, stainless steel</td>
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| Parameter(s):           | SM 300: 2400 rpm  
ZM 200: 18000 rpm |
| Time:                   | 8 min (2 min pre-cutting, 6 min fine grinding) |
| Achieved result(s):     | Predominantly < 850 µm |
| Remark(s):              | Pre-cutting in Cutting Mill SM 300 after embrittlement with Liquid Nitrogen. A representative part sample subsequently is fine ground in the Ultra Centrifugal ZM 200 after embrittlement with Liquid Nitrogen. |

**Recommendation:** The Cutting Mill SM 300 and Ultra Centrifugal Mill ZM 200 are suitable for the grinding of PET Preforms 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. © Retsch GmbH - www.retsch.com - lab@retsch.com
Pictures of the sample

Fig. 1: Original sample

Fig. 2: Preform after pre-cutting in SM 300

Fig. 3: Preform after fine grinding in ZM 200