



## 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
Configuration(s):	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
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 Centrufugal 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	

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## **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