Task:

Application field: Environment

Material: Plastic waste pellets

Feed size: 0-8 mm

Feed quantity: 50 g (representative single sample after dividing operation)

Material specification(s): elastic, temperature sensitive

Customer requirement(s): < 200 µm
determination of chlorine and calorific value

Subsequent analysis: Net Calorific Value

Solution:

Selected instrument(s): ZM 200 Ultra Centrifugal Mill
PT 100 Sample Divider

Configuration(s): Push-fit rotor of stainless steel with 12 teeth;
Ring sieve of stainless steel, trapezoid holes 0,5 mm

Parameter(s): Revolution speed 18000 rpm

Time: 3 min. (only for the disintegration process)

Achieved result(s): predominantly < 200 µm, sufficient for the required analysis

Remark(s): The total laboratory sample was first divided by the Sample Divider PT 100, dividing head for 10 single samples. Then one single sample of approx. 50 g was pre cooled in liquid nitrogen and ground in the Ultra Centrifugal Mill ZM 200.

Recommendation: For sample preparation of different plastic waste material the Ultra Centrifugal Mill ZM 200 is suitable under the above mentioned operation procedure.