



# Retsch Equipment for applications in the plastics industry

- Elastomers such as rubber, EPDM
- Duroplastics such as MF, DAP, EP
- Thermoplastics such as PP, PET, PVC, PA, PU, POM, PS, PEEK, PTFE, LDPE, HDPE
- Thermoplastic Elastomers such as EPDM/PP, ABS



## Cutting Mills SM 100/SM 2000

**Precrushing as preparation of a fine grinding process; recycling of production waste; volume reduction**

### Advantages

- Feed size up to 60 x 80 mm, grind size approx. 1 mm
- Powerful, yet gentle grinding process in larger batches at ambient temperature
- Easy cleaning, versatile, safe operation

## Ultra Centrifugal Mill ZM 200

**Fine grinding as sample preparation to subsequent determination of melt-index, DTA/DSC, analysis on harmful substances incl. heavy metals, for rheology, XRF/XRD**

### Advantages

- Feed size up to 10 mm, grind size < 0.200 mm
- Quick, yet gentle two-stage grinding process, with or without liquid nitrogen
- Special sieves for grinding plastics
- Easy cleaning with cassette
- Versatile



## Mixer Mill MM 301

**Fine grinding of small quantities as sample preparation to subsequent determination of melt-index, DTA/DSC, analysis on harmful substances incl. heavy metals, for rheology, XRF/XRD; cryogenic grinding**

### Advantages

- Feed size up to 8 mm, grind size approx. 0.100 mm
- Extremely short processing times
- Simultaneous grinding of 2 samples, mostly at ambient temperature
- Simple cryogenic grinding for difficult materials without cooling down time for the mill
- Minimum consumption of liquid nitrogen
- Safe and easy clamping

**Retsch GmbH & Co. KG**  
Rheinische Straße 36  
42781 Haan, Germany

Telephone +49/21 29/55 61-0  
Telefax +49/21 29/87 02

E-mail info@retsch.de  
Internet www.retsch.de

# Retsch®

**Solutions in Milling & Sieving**

## Retsch Equipment for applications in the plastics industry

### Laboratory Sample Dividers PT 100 and PK 1000

#### Representative volume reduction of all bulk materials

Preceding all particle size analyses including sieving or during sample preparation processes such as pulverization.

The inaccuracy of a sample, which is not representative of the bulk, cannot be compensated even by the most sophisticated and expensive analyser.

**Sample wrong – analysis useless!**



### Analytical Sieve Shakers AS 200 – 300 – 400 control

#### Particle size analysis and sieve cuts in all quality control applications

##### Advantages

- For sieve stacks 4" to 16" (100 mm to 400 mm) diameter
- All digital controls for time, amplitude/revolutions, interval
- Optional acceleration mode for ultimate reproducibility, especially in round robin tests
- Calibration certificate; recalibration available
- Interface for control through software EasySieve®
- Easy clamp available
- Horizontal sieving with AS 400 control especially recommended for grainy molding materials (DIN 53 477)



### Digital Image Processing System CAMSIZER®

#### The modern fully automatic alternative to sieving

##### Application

Simultaneous measurement of particle size distribution and shape in the range of 0.03 mm (30 microns) to 30 mm. For use on all dry free-flowing granular materials such as expandable Polystyrene (EPS), Polyolefine (PE), Polycarbonates, recycled Plastics.

##### Advantages

- Quick results in real time
- Provides both shape and particle distribution data
- Highly accurate and reproducible, high resolution
- Results perfectly match those from existing sieving method
- Virtually no maintenance, easy to use
- User friendly and versatile software package
- Designed for use in laboratory or production



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