

Density determination of rubber compounds

Brabender: ElaTest





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In rubber processing, density is a decisive factor, both in recipe development and in continuous production control. Brabender enables fast, production-accompanying and reproducible determination of the density of uncrosslinked rubber compounds.

Density determination is carried out by determining the sample mass using the integrated electronic balance and determining the volume using an electronic displacement measuring system. The sample is first weighed and then compressed by a piston in the measuring cylinder at a defined pressure. Taking into account the diameter of the measuring cylinder and the determined piston position, the sample volume and density are calculated.

Technical Data

- Density range: 0.8 - 2.6 g/cm³
- Accuracy: 0.1 % (0.001 g/cm³)
- Measuring cylinder diameter: 59 mm
- Max. measuring stroke: 80 mm
- Sample volume: 40 - 120 cm³
- Connections: compressed air 6 - 6.5 bar, quick coupling, 1 x RJ 45 Network (Ethernet), 2 x USB for printer and service
- Power supply: 1 x 230 V, 50/60 Hz + N + PE, 10 A
oder 1 x 115 V, 50/60 Hz + PE, 10 A
- Dimensions (W x H x D): 550 x 1370 x 700 mm
- Weight: 130 kg



Highlights

User friendly operation

- Easy control via browser-based MetaBridge software
- Powerful PC, touch screen and electronic scale

Automatic measurement evaluation

- Statistical evaluation of test results
- Reference value adjustment with alarm function for quality and incoming goods control

Application orientation

- Direct use in the production environment
- User defined method definition
- DAkkS-accredited calibration

Process integration

- Support of third-party systems (e.g. LIMS and ERP) via Brabender WebAPI
- Automatic data backup in the company network or cloud
- System integration via OPC UA interface



Integrated sample balance with automatic measured value transfer



New MetaBridge user interface

