Brabender[®]



Brabender[®] Elatest[®]

Density Determination of Rubber and Rubber Compounds



... where quality is measured.

Elatest

Excellent reproducibility-Easy handling-High reliability



The Elatest determines the density of polymers, in particular of rubber and non-vulcanized rubber compounds – a dimension which is of decisive importance for rubber processing both during recipe development and for continuous production control.

Fields of application

- Rubber industry
- Tire manufacturers
- Cable industry

Advantages

- Excellent reproducibility of the measured values
- Easy handling
- Reliable, sturdy design

Principle

Density is determined by the measurement of the mass by a built-in electronic scale and measurement of the volume by an electronic position sensor.

Each measurement starts with weighing the sample, followed by the sample being placed into the measuring cylinder and compressed by the piston.

For the determination of the sample volume, the piston stroke is measured between empty and filled cylinder.

The sample density is calculated automatically from the sample weight and the determined sample volume.

Software control

The instrument is controlled by an integrated touchscreen computer. From the sample weight and volume, the density is calculated automatically.

The saved data can be copied to a flash drive via USB or to a local network via Ethernet connection.



Elatest touchscreen

| 100.984 g | 95.621 cm ³ | 6.3bar | | |
|------------------------------|------------------------|---------------------|--|--|
| Please remove the material! | | | | |
| Sample: | Charge 1 Fa. X | Y1 | | |
| Weight: | 100.985 g | | | |
| Volume: | 95.621 cm | ³ (6995) | | |
| Density: | 1.056 g/c | :m ³ | | |
| Density Range: 1.000 - 1.500 | | | | |
| +0+ V | \$ | | | |

| 68.3 | 65g 64.6 | 58cm³ | 6.3bar 🖬 | |
|----------------------------|-------------|-------------------------|-----------------------------|--|
| Date: | 28. Septemb | er 2016 - 08: | 28:51 | |
| Compound: Charge 1 Fa. XY1 | | | | |
| Tests: | 5 | Mean: | 1.056 g/cm ³ | |
| St.Dev.: | 0.001 g/a | n ³ Min.Den. | : 1.055 g/cm ³ | |
| CV: | 0.070 % | Max.Den. | : 1.057 g/cm ³ | |
| Range: | 0 < 1.00 | 00 g/cm ³ | 0 > 1.500 g/cm ³ | |
| Remarks: | | | | |
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Display of the results of a single test

Density range

Statistical evaluation



Brabender application laboratory

The Brabender support

Our state of the art application laboratory is always made available to our customers.

You can choose to send material to us for testing or schedule a specific Lab Trial with our expert team. In our application laboratory, you will have access to our full product line to help come to a solution for your application.



| Accuracy | 0.1 % (0.001 g/cm³) |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Measuring cylinder Diameter Max. path Sample volume | 59 mm 80 mm 40 120 cm³ |
| Connections | Compressed air, 5 6 bar, quick coupling 1 x RJ 45 network (Ethernet) 2 x USB for printer and service |
| Mains connection | 1 x 230 V, 50/60 Hz + N + PE, 10 A 1 x 115 V, 50/60 Hz + PE, 10 A |
| Dimensions (W x H x D) | 550 x 1370 x 700 mm |

Elatest

0.8 ... 2.6 g/cm³



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