

RDC-153

Name BULK DENSITY COKE

Material type
**GRANULAR
PITCH
ELECTRODES
LINING**

Utilization
**R&D
IN-PLANT
LAB**

General description
The porosity of the different raw materials used for the production of electrodes has a very big impact on the electrode performance, not only for its quality but also in terms of process parameters to be optimized accordingly, such as the binder content. A simple and easy way to determine the porosity level is to determine the Bulk Density of the materials. Measuring fractions from different grain sizes allows having an overview of the material quality. Its information is vital for adequate process control.

The measurement is conducted with the RDC-153 apparatus, where a given quantity of grains from specific fractions is filled under controlled conditions into a graduated cylinder. This cylinder is then tapped for a given number of strokes and the volume of the sample is measured after the test. The bulk density is calculated and reported in kg/dm^3 , as the ratio of the sample's mass to its volume.

According to the ISO 10236 standard method, this measurement is done on natural sieved material (no crushing during the sample preparation) and five different fractions (8-4, 4-2, 2-1, 1-0.5 and 0.5-0.25 mm) are measured separately.

Technical information	Standard Method:	ISO 10236
	Property:	
	Tapped Bulk Density	$[\text{kg}/\text{dm}^3]$
	Sample:	100 g of each natural fraction
	Process time:	~ 6 minutes
	Installation:	Workbench
	Dimensions (LxWxH):	45 x 37 x 84 cm
	Weight:	38 kg
	Electrical Property:	230V 1/N/PE, 50 Hz 0.05 kW, 0.2 A
	Certified Reference Standard:	RDC-1153
	Database Connection:	No

Additional Recommended Equipment:

Drying oven (min. temperature 110 °C)
Weighing scale with an accuracy of 0.1 g
Sieving machine (8, 4, 2, 1, 0.5 and 0.25 mm sieves)



RDC 1153

Technical information	Weight per unit:	800 g
	Number of tests:	8

