

RDC-117

Name

VIBRATED 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. This porosity level can be estimated by measuring the Bulk Density of the materials.

The measurement is conducted with the RDC-117 apparatus, where a given quantity of one coke fraction, prepared according to the ASTM D4292 standard method, is filled under controlled conditions into a graduated cylinder. This cylinder is then vibrated for a given time 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.

Alternatively, this measurement can be performed by using the RDC-153 apparatus according to the ISO 10236 standard method, which allows to reach better precision figures and to gather additional information, as several natural fractions are measured.

Technical information

Standard Method:	ASTM D4292
Property:	[kg/dm^3]
Vibrated Bulk Density	
Sample:	100 g of one specific prepared fraction
Process time:	~ 7 minutes
Installation:	Workbench
Dimensions (LxWxH):	40 x 48 x 82 cm
Weight:	46 kg
Electrical Property:	230V 1/N/PE, 50 Hz 0.14 kW, 0.6 A
Certified Reference Standard:	RDC-1117
Database Connection:	No

Additional Recommended Equipment:

Drying oven (min. temperature 110 °C)
Sieving machine with defined sieve sizes
Jaw Crusher
Roller Crusher
Weighing scale with an accuracy of 0.1 g



RDC 1117

Technical information

Weight per unit:	800 g
Number of tests:	8

