

RDC-135

Name ARCHIMEDES BALANCE

Material type
**GRANULAR
PITCH
ELECTRODES
LINING**

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

General description
The Archimedes balance allows for determining the apparent density and open porosity of electrode core samples, which are two important properties.

The apparent density of a sample corresponds to the ratio of its mass to its volume in kg/dm^3 . The mass is obtained by weighing the core sample, while its volume is determined according to the Archimedes principle by immersing the sample in water and measuring the resulting force applied to it. This method has the advantage of allowing the determination of the volume of a sample with complex geometry.

The open porosity, in percent, is calculated by measuring the mass of water that has penetrated the open pores of the sample.

The RDC-135 apparatus is compatible with the international standard method ISO 12985-2 and allows the measurement of samples with a size of up to 50 mm.

Standard Method:	ISO 12985-2
Property:	
Apparent Density	$[\text{kg}/\text{dm}^3]$
Open Porosity	$[\%]$
Sample:	Core $\varnothing 50 \times 50 \text{ mm}$
Process Time:	~ 2 hours
Installation:	Workbench
Dimensions (LxWxH):	35 x 26 x 37 cm
Weight:	7 kg
Electrical Property:	230V 1/N/PE, 50 Hz 70 W, 0.3 A
Fluid Property:	Distilled water
Database Connection:	No

Additional Recommended Equipment:

Drilling machine (RDC-157 or RDC-179)

Saw (RDC-140 or RDC-148)

Drying oven (min. temperature 180 °C)

Heating plate (for boiling)

