

RDC-147

Name **RESIFLEX**

Material type
**GRANULAR
PITCH
ELECTRODES
LINING**

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

General description
The specific electrical resistance of the electrode, strongly influenced by the coke, is an important property to minimize, as it directly affects the voltage drop and, thus, the metal production cost. Measuring the electrical resistance of the coke also provides an indication of the heat treatment that the material has undergone during calcination. Its information is, therefore, valuable for the process control of coke calciners.

The measurement is conducted with the RDC-147 apparatus, where a given weight of sample from a specific fraction is pressed in a chamber where a constant direct current is applied. The voltage drop, combined with the height of the sample, is measured to calculate its specific electrical resistance in $\mu\Omega\text{m}$. By measuring the height of the sample, the pressed density in kg/dm^3 can be calculated at the same time.

Standard Method:	ISO 10143
Property:	
Specific Electrical Resistance	$[\mu\Omega\text{m}]$
Pressed Density	$[\text{kg}/\text{dm}^3]$
Sample:	15 g of granular carbon (1.4–1 mm)
Process Time:	~ 2 minutes
Installation:	Workbench
Dimensions (LxWxH):	60 x 67 x 73 cm
Weight:	100 kg
Electrical Property:	230 V 1/N/PE, 50 Hz 0.5 kW, 2.2 A
Certified Reference Material:	RDC-1147
Database Connection:	Yes

Additional Recommended Equipment:

Oil content (RDC-176 or RDC-208)
Drying oven (min. temperature 110°C)
Weighing scale with an accuracy of 0.01 g
Crusher (< 1.5 mm)
Sieving machine (1.4 mm and 1 mm sieves)



RDC 1147

Weight per unit:	180 g
Number of tests:	12

Technical information

