RDC-178

Name

FURNACE FOR COKING VALUE

Material type

GRANULAR
PITCH
ELECTRODES
LINING

Utilization

R&D
IN-PLANT
LAB

General description

During the production of electrodes, binder pitch is added to a dry aggregate recipe to form green blocks that are then baked. During baking, the binder pitch is converted to pitch coke; the aim being to retain as much carbon as possible in the electrode to ensure a high density level. The coking value is one of the key properties to qualify a pitch. It corresponds to the measurement of the residual carbon from the pitch after its cokefaction.

The measurement is conducted with the RDC-178 apparatus, where a pitch sample will be heated up to 550 °C under controlled conditions in a crucible, to remove its volatile compounds. The residual material during this cokefaction process is used for the calculation of the coking value and expressed as a percentage of the initial sample weight.

Technical information

Standard Method:	ISO 6998
Property: Coking Value	[%]
Sample:	1 g of pitch (< 0.25 mm)
Process time:	~ 4 hours
Installation:	Workbench under fume hood
Dimensions (LxWxH):	68 x 78 x 54 cm
Weight:	80 kg
Electrical Property:	400V 3/N/PE, 50 Hz 5.5 kW, 14 A
Database Connection:	No

Additional Recommended Equipment:

Weighing scale with an accuracy of 0.0001 g
Crusher (< 4 mm)
Desiccator
Sieving machine (0.25 mm sieve)