RDC-171

Name **QUINOLINE INSOLUBLE**

Material type
GRANULAR
PITCH
ELECTRODES
LINING

Utilization
R&D
IN-PLANT
LAB

General description

The quality of the pitch binder used during the electrode production has a strong impact on the final electrode quality. To characterize it, different solvents, mainly quinoline and toluene, are used for evaluating the composition of different fractions:

- Alpha resins: corresponding to the heavy fraction or the quinoline insoluble
- Gamma resins: corresponding to the light fraction or toluene soluble (determined with RDC-172 apparatus).
- Beta resins: corresponding to the intermediate fraction (calculated from the difference of the toluene insoluble and the quinoline insoluble).

The measurement is conducted with the RDC-171 apparatus. A given mass of a pitch sample is heated and dissolved in hot quinoline, before being filtered under vacuum. After drying, the quantity of undissolved particles remaining on the filter is weighed to calculate the quinoline insoluble content expressed as a percentage of the initial sample weight.

Technical information

Standard Method:	ISO 6791
Property: Quinoline Insoluble	[%]
Sample:	1 g of pitch (< 0.25 mm)
Process Time:	~ 3 hours
Installation:	Workbench under fume hood
Dimensions (LxWxH):	50 x 30 x 100 cm
Weight:	8 kg
Electrical Property:	230V 1/N/PE, 50 Hz 0.15 kW, 0.7 A
Database Connection:	No
Consumable:	Quinoline Toluene

Additional Recommended Equipment:

Weighing scale with an accuracy of 0.001 g
Oven for cleaning (min. temperature 550 °C)
Oven (min. temperature 140 °C)
Crusher (< 4 mm)
Hot plate