RDC-156

Name

VIBRATORY BALL MILL FOR GRAIN STABILITY

Material type

GRANULAR
PITCH
ELECTRODES
LINING

Utilization

R&D
IN-PLANT
LAB

General description

When raw materials with coarse grains and low mechanical stability are used, breakage can occur during the green electrode preparation. When this happens, the surface area of the broken grains is not entirely covered by the binder. This can lead to crack formation during baking, graphitization, or during the utilization of the electrodes. In addition, low grain stability may also result in a grain size distribution finer than expected. For this purpose, it is important to ensure good grain stability of the different raw materials.

The measurement is conducted with the RDC-156 apparatus, where grains of the coarse fraction 8-4 mm are placed in a vibratory mill with steel balls for a given period of time. After the test, the grain stability is calculated and reported in %, as the ratio of grains still coarser than 4 mm to the initial sample weight.

Technical information

Standard Method:	ISO 10142
Property: Grain Stability	[%]
Sample:	100 g of granular carbon (natural 8–4 mm)
Process Time:	~ 5 minutes
Installation:	Workbench
Dimensions (LxWxH):	58 x 56 x 40 cm
Weight:	90 kg
Electrical Property:	400V 3/N/PE, 50 Hz 0.2 kW, 0.5 A
Certified Reference Standard:	RDC 1156
Database Connection:	No

Additional Recommended Equipment:
Drying oven (min. temperature 110 °C)
Weighing scale with an accuracy of 0.1 g
Sieving machine (8 and 4 mm sieves)

RDC 1156

Technical information

Weight per unit:	600 g
Number of tests:	6