

Material type) ë Œ Ô ý ì Œ ë
 [1 ÷ š ¶
 ì ¥ š ÷ ë Ũ ¥ ï
 A 1 Ô 1 Ô ±

Utilization
 — »
 1 Ô y ç ì Œ Ô ÷
 A Œ ~

General description

To minimize the net anode consumption in the electrolysis cells, it is important to use anodes with low reactivity to CO₂ gas, which can be measured by the RDC-146 apparatus. This allows increasing the quantity of carbon available for the production of aluminium and decreasing the excess carbon consumption, which reduces the aluminium production cost.

As the CO₂ reactivity of the baked anodes is strongly impacted by the reactivity of the calcined cokes, it is worthwhile to measure it on a routine basis to predict and anticipate any anode quality variations.

The measurement is conducted with the RDC-141 apparatus, where a calcined coke sample is heated at 1000 °C during a given period of time while it is exposed to a saturated CO₂ atmosphere. At the end of the heating cycle, the sample is weighed and the mass loss, in percent, is used to express the CO₂ reactivity of the sample.

Technical information

Standard Method:	ISO 12981 1
Property:	CO ₂ Reactivity Coke [%]
Sample:	5 g of coke (1.4 1 mm)
Process Time:	~ 3 hours
Installation:	Workbench under fume hood
Dimensions (LxWxH):	60 x 40 x 68 cm
Weight:	53 kg
Electrical Property:	230V 1/N/PE, 50 Hz 0.90 kW, 4 A
Fluid Property:	CO ₂ , 50 l/h, 3-7 bar
Certified Reference Standard:	RDC 1141
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 0.001 g
 Crusher (<1.5 mm)
 Sieving machine (1.4 mm and 1 mm sieves)



Technical information

Weight per unit:	180 g
Number of tests:	36

