

## RDC-141 CO<sub>2</sub> Reactivity Coke

Reactivity to oxidant gases is one of the most important coke properties as it dictates the anode burning behaviour i.e. the excess anode consumption.

For the CO<sub>2</sub> reactivity, a loss in weight method is appropriate. A temperature controller regulates the oven temperature at 1 000 °C and after 100 minutes the sample is weighed, and the weight loss determined. Values are expressed in percent weight loss. The typical range for petroleum coke lies between 5 and 15 %. Repeatability can be estimated to be around 1 % abs and reproducibility 2 % if monitor samples are used.

The RDC-141 is used for the determination of the CO<sub>2</sub> Reactivity of granular coke and it is compatible with the standard ISO 12981-1. R&D Carbon in Switzerland provides the reference material required to guarantee the accuracy of the tests and ensures consistent and repeatable values.



\*Photos and illustrations are not contractual.

<b>Standards</b>	Compatible	ISO 12981-1
	RDC	RDC-1141
<b>Specifications</b>	Measurement	CO <sub>2</sub> Reactivity Coke [%]
	Sample	5g Coke 1.4-1 mm
	Sample / test	1
	Process time	~ 3 hours
<b>Configuration</b>	Set up	Workbench
	Dimensions	70 x 40 x 70 cm (LxWxH)
	Weight	50 kg
<b>Facilities</b>	Electrical connection	230V 1/N/PE, 50/60Hz
	Power	0.90 kW
	Ventilation	Fume hood
	Air pressure	3 - 7 bar (50 l/h)
	Gas supply	CO <sub>2</sub> , 50 l/h, min 3 bar
	Gas quality	CO <sub>2</sub> better than 99.5 %; N <sub>2</sub> + Ar < 0.5 %; H <sub>2</sub> O < 150 mg/Nm <sup>3</sup>