

# RDC-174

## Name ANODE BINDER CONTENT

Material type  
**GRANULAR  
PITCH  
ELECTRODES  
LINING**

Utilization  
**R&D  
IN-PLANT  
LAB**

General description  
To reach an optimum and stable electrode quality level, one of the main and important process parameter to determine the optimum binder content for a given dry aggregate recipe. This is not an easy task to perform, as almost all process steps can be of influence. Finding this optimum requires steady process conditions and ideally a process optimization (see RDC-160 equipment for more information). For research & development purposes, it is of interest to determine the actual binder content of a green paste or of a green electrode.

The measurement is conducted with the RDC-174 apparatus, where a given mass of green electrode or paste sample is washed by hot quinoline until all the binder is dissolved. The binder content is calculated as the dissolved part expressed as a percentage of the initial sample weight. To increase the accuracy of the test, the quinoline insoluble, measured with the RDC-171 equipment, needs to be considered.

Technical information	Standard Method:	ISO 14423
	Property:	
	Binder Content	[%]
	Maximum Temperature:	250°C
	Sample:	200 g of green electrode (< 8 mm)
	Process Time:	~ 2 days
	Installation:	Workbench under fume hood
	Dimensions (LxWxH):	30 x 35 x 105 cm
	Weight:	9 kg
	Electrical Property:	230 V 1/N/PE, 50 Hz 0.3 kW, 1.3 A
	Fluid Property:	Water
	Database Connection:	No
	Consumable:	Quinoline

### Additional Recommended Equipment:

Quinoline Insoluble (RDC-171)  
Weighing scale with an accuracy of 0.01 g  
Oven (min. temperature 140°C)  
Oven for cleaning (min. temperature 550°C)  
Desiccator

