

RDC-187

Name FLEXURAL STRENGTH

Material type
**GRANULAR
PITCH
ELECTRODES
LINING**

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

General description
Low mechanical strength of the electrodes, as well as the presence of cracks inside the blocks, are detrimental to the electrode performance during its use. A low flexural strength potentially results in a low thermal shock resistance. The blocks can break when they are loaded from ambient temperature to the hot cells. In addition, measuring the flexural strength combined with other properties can give valuable information about the optimization of production process parameters. The measurement is conducted with the RDC-187 apparatus, where an increasing load is applied to the center (three points method) of a core sample with a 50 mm diameter and 130 mm length until it breaks. The maximal load applied to the sample and the cross section are used to calculate the flexural strength in MPa.

Standard Method:	ISO 12986-1
Property:	Flexural Strength [MPa]
Sample:	Core Ø50 x 130 mm
Process Time:	~ 2 minutes
Installation:	Workbench
Dimensions (LxWxH):	60 x 55 x 56 cm
Weight:	87 kg
Electrical Property:	230 V 1/N/PE, 50 Hz 0.5 kW, 2.2 A
Database Connection:	Yes

Additional Recommended Equipment:

Drilling machine (RDC-157 or RDC-179)

Saw (RDC-140 or RDC-148)

Drying oven (min. temperature 180°C)

