

RDC-153 Bulk Density Coke

As the performance of the anodes is greatly influenced by the coke porosity a simple method determining the volume of 100 g of material tapped in a cylinder was adopted. As the volume depends on the coke size and of any pre-crushing operations (shape), the tapped bulk volume is determined on 5 fractions of uncrushed coke prepared after sieving according to ISO 2325. The tapped bulk density is then calculated as the quotient of the mass and the volume of material in g/cm^3 .

The arithmetic mean of the 5 fractions MBD can be calculated. The reproducibility of the method is 0.02 g/cm^3 . Typical ranges areas follow:

Fraction	Tapped Bulk Density
8 – 4 mm	0.61 – 0.70 g/cm^3
4 – 2 mm	0.70 – 0.79 g/cm^3
2 – 1 mm	0.77 – 0.86 g/cm^3
1 – 0.5 mm	0.83 – 0.92 g/cm^3
0.5 – 0.25 mm	0.85 – 0.93 g/cm^3
MBD	0.75 – 0.84 g/cm^3

The RDC-153 is used for the determination of the tapped bulk density of certain granular classes of carbon and graphite materials (solids). The bulk density is determined from the mass and volume of the granular material after tapping in a bulk volumeter.



*Photos and illustrations are not contractual.

Standards	Compatible	ISO 10236
	RDC	RDC-1153 fractions 1 - 0.5 mm and 8 - 4 mm
Specifications	Measurement	Tapped Bulk Density [kg/dm^3]
	Sample	Coke 8-4, 4-2, 2-1, 1-0.5, 0.5-0.25mm
	Sample / test	1
	Process time	~ 6 minutes
Configuration	Set up	Workbench
	Dimensions	35 x 35 x 80 cm (LxWxH)
	Weight	38 kg
Facilities	Electrical connection	230V 1/N/PE, 50/60Hz
	Power	74 W
	Other	Electrical plug