

RDC-177

Name

DUST FORMING FACTOR

Material type

GRANULAR
PITCH
ELECTRODES
LINING

Utilization

R&D
IN-PLANT
LAB

General description

Handling of calcined coke potentially creates dust emission during loading and transportation, especially when its grain size distribution is fine. To prevent this, a dedusting agent is usually added after calcination. To optimize the quantity of oil necessary for limiting dust emissions, the dusting propensity of a specific calcined coke should be determined.

The measurement is conducted with the RDC-177 apparatus, where a given mass of sample is placed. A valve allows the sample to fall into a chamber, while an airflow carries the finest particles to a filter on top of the equipment. The dust forming factor is calculated and reported as the percentage of dust in the filter compared to the initial sample weight.

Technical information

Property:

Dust Forming Factor [%]

Sample:

100 g of granular carbon (natural < 4 mm)

Process Time:

~ 5 minutes

Installation:

Fix on a wall

Dimensions (LxWxH):

26 x 36 x 81 cm

Weight:

30 kg

Fluid Property:

Air, 300 l/h, 3–7 bar

Database Connection:

No

Additional Recommended Equipment:

Weighing scale with an accuracy of 0.0001 g

Oven (min. temperature 110°C)

Desiccator

Sieving machine (4 mm sieve)

