



Calgon Carbon Corporation produces three types of powdered activated carbons, each specifically designed to provide a unique pore structure. These powdered activated carbons are used in purification of many products in the chemical, food, and pharmaceutical industries.

RB, RC and BL carbons are pulverized to a mesh size that assures a rapid rate of adsorption and high capacity. They are produced from selected grades of bituminous coal resulting in a product of high density. These high density, coal-based products provide fast filtration, low product retention, easy wettability, and minimum dusting characteristics.

Produced under rigidly controlled high temperature steam activation, these carbons each have large surface area, high pore volume, and a minimum moisture content as packed. By varying the manufacturing conditions, internal pore structures are created imparting unique adsorption properties specific to each product type.

A call to a Calgon Carbon Corporation Technical Sales Representative and a few simple tests will determine the optimum product for your purpose. The choice of product for a specific application will vary due to differing impurities and process conditions. Samples and test procedures are available on request.

FILTRATION RATES

Due to their high bulk densities and optimum particle size, RB, RC and BL exhibit consistently lower filter cake resistance, thereby allowing the use of higher-filtration flow rates. They have a filter cake resistance which ranges from 32 to 56 with a mean value of 48. Of the other commercial carbons tested, the mean filter cake resistance value was 105, with the range of values from 22 to 176. The low filter cake resistance values obtained with RB, RC and BL result in distinct operational advantages including:

- Decreased filtration time
- Increased plant throughput
- Lower filter area requirements
- Less filter aid for satisfactory cake
- Lower filter maintenance costs
- Lower filtration labor costs

Product lost on spent adsorbent is an important consideration, particularly when a costly product is being treated. Low product retention of Calgon Carbon Corporation's pulverized activated carbons is shown below. Both low and high viscosity liquids were used. These data were determined by a standardized test (slurry known weight of carbon with liquid, filter by pressure, blow with nitrogen, weigh resultant cake).

SPECIFICATIONS

RB

Iodine No., mg/g	1070 min.
Molasses No	400 min.
Ash, weight %	23 max.
Moisture, as packed %	2 max.
Wet Screen Analysis	
minus 325 U.S. mesh, wt%	60-75

RC

Iodine No., mg/g	1020 min.
Molasses No	320 min.
Ash, weight %	23 max.
Moisture, as packed %	2 max.
Wet Screen Analysis	
minus 325 U.S. mesh, wt%	60-75

BL

Iodine No., mg/g	1000 min.
Molasses No	230 min.
Ash, weight %	10 max.
Moisture, as packed %	2 max.
Wet Screen Analysis	
minus 325 U.S. mesh, wt%	65-75

RETENTION, DRY CARBON BASIS

CARBON	H ₂ O, Wt. %	DOP, Wt. %
RB	130	165
RC	104	140
BL	94	125

Test Reference: "Standard Tests for Performance of Adsorption Aids," Report of the International Commission for Uniform Methods of Sugar Analysis, June, 1954.

COMMERCIAL INFORMATION

Packaging: RB, RC and BL Carbons are packed in four-ply Kraft bags, 40 pounds net weight, 61 pounds gross weight.

MANUFACTURING FACILITIES

Pittsburgh, PA (RB & RC)
Catlettsburg, KY (BL)

Safety Message

Wet activated carbon preferentially removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels. If workers are to enter a vessel containing carbon, appropriate sampling and work procedures for potentially low oxygen spaces should be followed, including all applicable Federal and State requirements.

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CALGON CARBON CORPORATION

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