

Calgon Carbon's Type PWA, a pulverized activated carbon with low acid-soluble iron content, is specifically designed for use in the familiar mixing-contact-filtration manner. Type PWA is ideally suited for the purification of many products in pharmaceutical and other industries where low pH solutions are encountered. This product is acid-washed during the manufacturing process resulting in a product with a very low acid-soluble iron content.

Type PWA Pulverized Carbon has a particle size of 65-75% minus 325 mesh (U. S. Sieve Series, opening of 44 microns) in order to provide rapid rates of adsorption and filtration. Manufactured by high temperature steam activation from selected grades of bituminous coal to produce a product of high density, Type PWA provides the benefits of fast filtration, low product retention, easy wettability and minimum dusting characteristics.

Typical Physical Properties:

Total Surface Area (N ₂ BET Method*), m ² /g.....	900-1000
Apparent Density (Bulk Density, dense packing), g/cc.....	0.51
Real Density (He Displacement), g/cc.....	2.1
Pore Volume (within particle) cc/g.....	0.90
Specific Heat at 100°C.....	0.25
Acid Soluble Ash, Wt. %44
Ash, Wt. %	6.0
pH.....	6.0-8.0

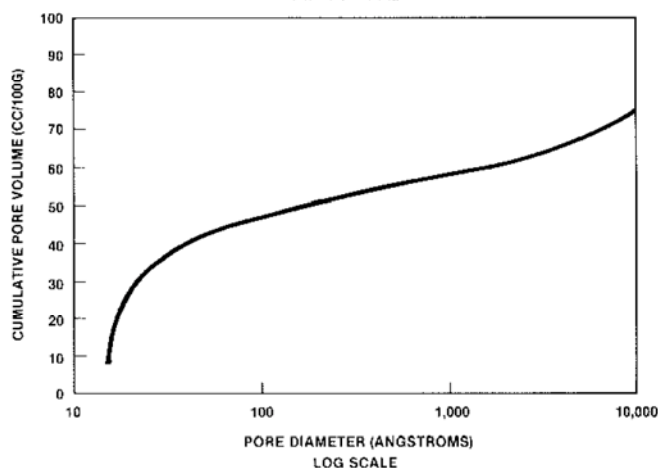
*Brunauer, Emmett & Teller: J. Am. Chem. Soc. 60,309 (1938)

FILTRATION RATES

Because of its high bulk density and optimum particle size, Type PWA Pulverized Activated Carbon exhibits consistently low filter cake resistance which permits operational advantages such as:

- Decreased filtration time.
- Increased plant throughput i.e. higher filtration flow rates.
- Lower filter area requirements.
- Less filter aid for satisfactory cake.
- Lower filter maintenance costs.
- Lower filtration labor costs.

PORE SIZE DISTRIBUTION CURVE
PWA PULVERIZED



COMMERCIAL INFORMATION

Shipping Points: Catlettsburg, Kentucky; Pittsburgh, Pennsylvania.

Packaging: Type PWA Pulverized Carbon is packed in four-ply Kraft bags, 50 pounds net weight, 51 pounds gross weight.

SPECIFICATIONS

Iodine Number, Minimum	900
Molasses Number, Minimum	210
Acid Soluble Iron, Maximum, Wt. %	0.05
Moisture, Maximum, as packed, Wt. %	3.5
Wet Screen Analysis, minus 325 U.S. Mesh, %	65-75

PWA

900
210
0.05
3.5
65-75

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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