

WS-480 Pelleted Activated Carbon



Description

WS-480 is a high activity virgin pelleted activated carbon designed for use in gas phase applications. It is an extruded coal-based product activated at a high temperature in a steam atmosphere. The 4mm pellet diameter minimizes the pressure drop. The selection of raw material and manufacturing process result in high mechanical strength properties, maximizing the cost effectiveness of thermal reactivation. WS-480 offers effective VOC and hydrocarbon emission control and exceptional performance and economics when treating contaminant concentrations in excess of 2,000 ppmv.

Applications

Some of the typical applications for WSC-480 activated carbon include:

- Solvent recovery
- Gas processing and purification
- VOC control
- Catalyst / support
- HVAC

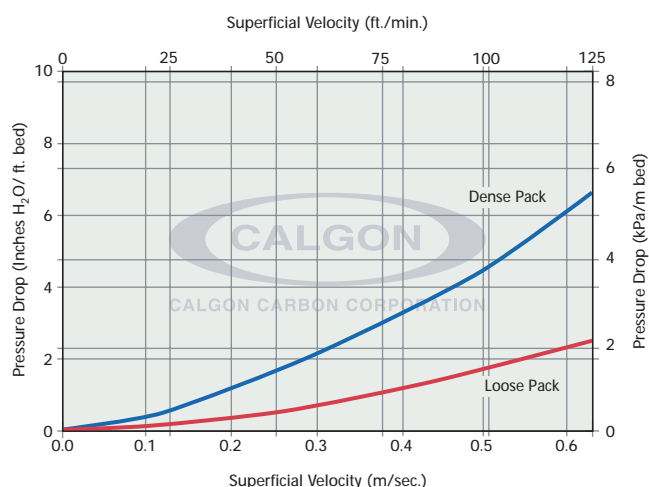
Specifications

Carbon Tetrachloride Number by weight	80 (min)
Moisture, as packed by weight	4% (max)
Hardness	95 (min)
Screen Size by weight, U.S. Sieve Series	
Through 6 mesh	5% (max)

Features

Raw Material	Coal
Particle Construction	Coal is pulverized and reagglomerated with suitable binder No chemical additives; only carbonaceous materials used Pellet shape
Activation	Thermal activation with reducing atmosphere (steam) All carbon structure suitable for multiple cycles of in-situ regeneration or high temperature reactivation

Pressure Drop Curve



When designing an activated carbon adsorption system, Calgon Carbon Corporation recommends that the dense-packed pressure drop be used for fan sizing, since activated carbon will settle during use. The loose-packed pressure drop will probably occur during start-up of the system. The typical apparent density of this product is 0.39 g/cc (24 lb./ft³). In practice, the loose-packed density is approximately 0.32 g/cc (20 lb./ft³).

Packaging

- 500 kg super sack
- 44 lb. bag

Benefits

Raw Material	Produces a pore structure for the adsorption of a broad range of contaminants and concentrations. Higher density results in high volume activity and economical adsorber design.
Particle Construction	Creates optimal transport paths for faster adsorption / desorption, especially important for catalyst and chemical conversion processes. Generates the hardness and abrasion resistance required for in-situ regeneration and thermal reactivation. Higher purity carbon with less chance of adverse chemical reactions. Low pressure drop.
Activation	No residual activation chemicals to interfere with application. Allows for ultimate destruction of adsorbed organics with minimal loss of the original carbon structure. Allows for the reuse of the carbon and eliminates disposal problems.

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Design Considerations

The design of an activated carbon adsorption system is dependent on the adsorbate type, influent concentration, temperature, flow rate, performance objective, and other factors. Calgon Carbon can help evaluate the suitability of activated carbon to satisfy specific needs and assist in the design of an adsorption system. In addition to the supply of activated carbon, Calgon Carbon offers adsorption systems and carbon reactivation services to meet particular treatment objectives. For additional information on adsorption capacity of organic compounds, please contact the Calgon Carbon Technical Sales Office in your area.

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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