

Product Bulletin

CENTAUR[®] 4X6 GRANULAR ACTIVATED CARBON

Description

CENTAUR[®] 4x6 is a vapor phase virgin activated carbon that has been manufactured to develop catalytic functionality. The product is unique in that it concentrates reactants via adsorption and then promotes their reaction on the surface of the pores. CENTAUR 4x6 is produced from bituminous coal using a patented process. Although it is not impregnated with metals or alkali, it displays the catalytic function of these materials but does not present an exotherm or disposal problem. In most cases, it can be regenerated.

Applications

CENTAUR 4x6 can be utilized for the promotion of oxidation, reduction, decomposition, substitution, and elimination reactions. Specific applications include H₂S oxidation in refinery gas or corrosion control, SO₂ oxidation¹ and NO_x reduction to nitrogen. CENTAUR 4x6 should be utilized in vapor phase applications where a low pressure drop is required. On-site regeneration⁺ as well as thermal reactivation are options for recycle or reuse of the product to minimize operating and disposal costs.

Design Considerations

The primary application of CENTAUR 4x6 is for promotion of catalytic reactions. The carbon can be utilized in a fixed bed mode with superficial velocities of up to 125 ft./min. In some applications, it can be regenerated on-site. The bed depth depends on the contact time requirements and will vary from 12" to 36". This will be defined by the specific application. The field packed density of the product is typically 36 lb/ft³.

Packaging

225 lb (102.3 kg) fiber drum

¹Centaur's use in certain sulfur dioxide emission applications are covered under certain license arrangements. Please check with your technical sales representative regarding your specific application. If at any time our products or services do not meet your requirements or expectations, or if you would like to suggest any ideas for improvement, please call us at 1-800-548-1999. Form outside the U.S. please call +1-412-787-6700.

⁺Purchase of this product from Calgon Carbon Corporation includes a license under the following U.S. Patents. Numbers 5356849 and 5494869.

Specifications

Peroxide No.*	14 max
Iodine No., mg/g	800 min
Butane Activity, wt%	15.6 min
Ash, by weight%	7 max
Moisture, by weight%, as packed	2 max
Hardness No.	97 min
Apparent Density, g/cc	0.56 min
Mean Particle Diameter, mm	3.7 min

U.S. Sieve Series

Percent on 4 mesh

Percent through 7 mesh 15% max 8.0% max

^{*}Peroxide number utilizes the rate of decomposition of hydrogen peroxide by the carbon and is an indicator of the amount of catalytic activity.

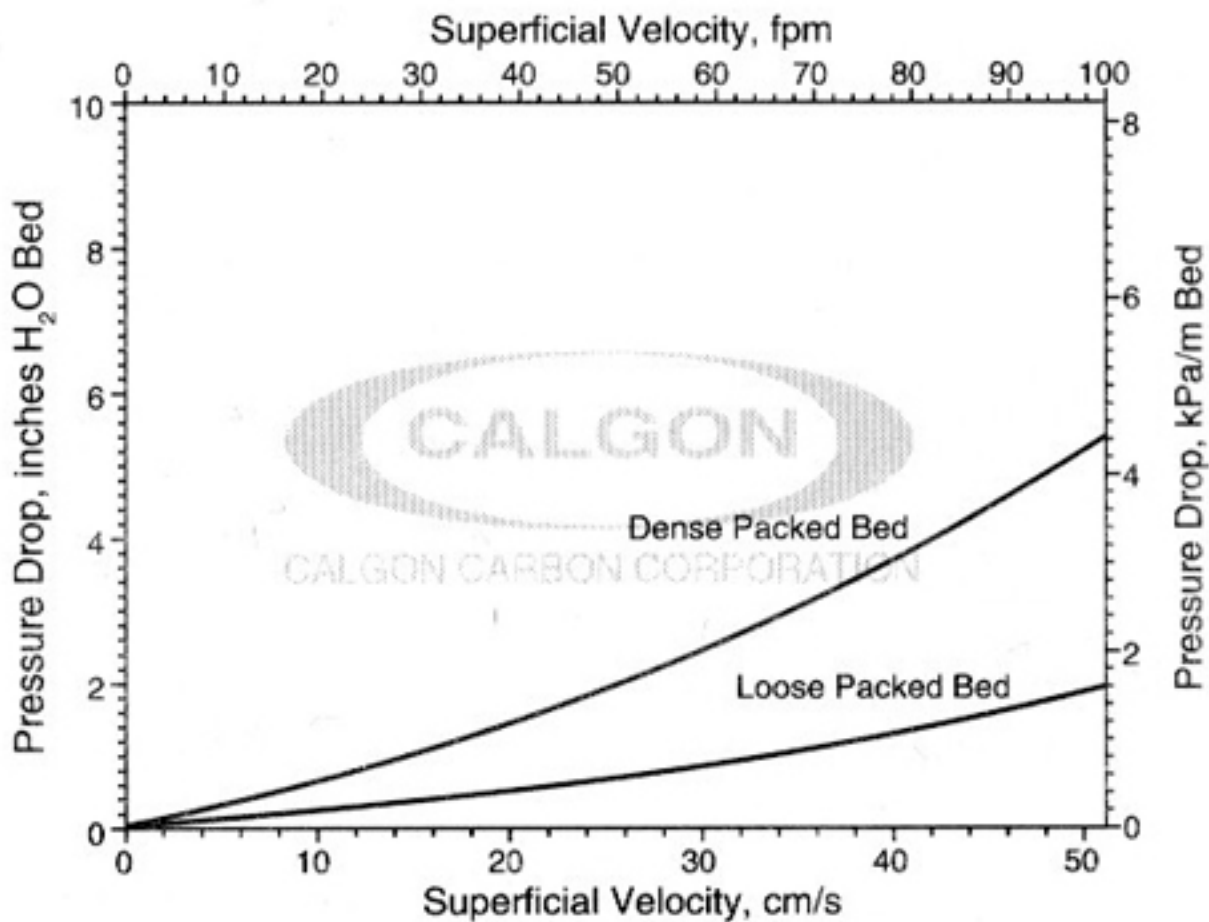
Manufacturing

Catlettsburg, KY



Visit our website at www.calgoncarbon.com, or call 1-800-4-CARBON to learn more about our complete range of products and services, and local contact information.

**Chemviron
Carbon**



PRESSURE DROP CURVE

Features

- ◆ Catalytic Activity
- ◆ Not Impregnated
- ◆ Thermal Reactivation Option
- ◆ Enhanced Performance
- ◆ High Hardness
- ◆ Works at Low Oxidant Levels
- ◆ Simple Equipment Design
- ◆ Reduced Carbon Requirements

Benefits

- ◆ Smaller system size
- ◆ Low Capital requirements
- ◆ Minimized safety concerns with exotherms, ignition temperature, toxicity
- ◆ Disposal is not an issue
- ◆ Reduced fines - handling loss
- ◆ Wide applicability. Can eliminate chemical addition
- ◆ Reliable, handles spikes in concentration, no metering of chemicals
- ◆ Reduces operating costs
- ◆ Achieves greater degree of contaminant removal at reduced costs

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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