

## 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 H<sub>2</sub>S oxidation in refinery gas or corrosion control, SO<sub>2</sub> oxidation<sup>1</sup>, and NO<sub>x</sub> reduction to nitrogen. CENTAUR® 4x6 should be utilized in vapor phase applications where a low pressure drop is required. On-site regeneration<sup>†</sup> 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./ft<sup>3</sup>.

<sup>1</sup>CENTAUR®'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.

<sup>†</sup>Purchase of this product from Calgon Carbon Corporation includes a license under the following U.S. Patents: Numbers 5356849 and 5494869.

#### Specifications

Peroxide No.* (max)	19
Iodine No., mg/g (min)	800
Butane Activity, wt% (min)	15.6
Ash, by weight% (max)	7
Moisture, by weight%, as packed (max)	2
Hardness No. (min)	97
Apparent Density, g/cc (min)	0.56
Mean Particle Diameter, mm (min)	3.6
<b>Screen Size, US Sieve Series</b>	
Larger than no. 4	15%
Smaller than no. 7	8%

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

#### Features

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

#### Benefits

- Smaller system size; lower capital requirements.
- Minimized safety concerns with exotherms, ignition temperature, toxicity
- Disposal is not an issue
- Reduced fines and handling losses
- Wide applicability; can eliminate chemical addition
- Reliable; handles spikes in concentration; no metering of chemicals
- Reduces operating cost
- Achieves greater degree of contaminant removal at reduced costs

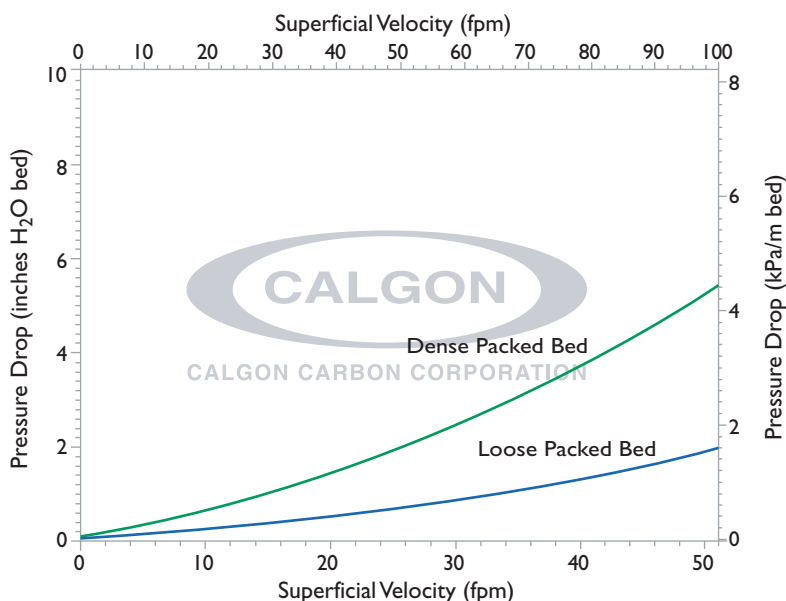
### Carbon and Process Media

Visit our website at [www.calgoncarbon.com](http://www.calgoncarbon.com), or call 800-422-7266 to learn more about our complete range of products and services, and obtain local contact information.

# CENTAUR<sup>®</sup> 4x6

## Granular Activated Carbon

### Pressure Drop Curve



### Packaging

225 lb (102.3 kg) fiber drum

### 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.

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.

### Limitations of Liability

The Supplier's liability and the Purchaser's exclusive remedy for any cause of action arising out of this transaction, including, but not limited to, breach of warranty, negligence and/or indemnification, is expressly limited to a maximum of the purchase price of spare parts or equipment sold hereunder. All claims of whatsoever nature shall be deemed waived unless made in writing within forty-five (45) days of the occurrence giving rise to the claim. In no event shall the Supplier, for any reason or pursuant to any provision of the warranty, be liable for incidental or consequential damages or damages in excess of the purchase price, nor shall the Supplier be liable for loss of profits or fines imposed by governmental agencies.

Visit our website at [www.calgoncarbon.com](http://www.calgoncarbon.com)



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