



CALGON CARBON CORPORATION



PRODUCT BULLETIN

# CENTAUR<sup>®</sup> 12x40 GRANULAR ACTIVATED CARBON

## DESCRIPTION

CENTAUR<sup>®</sup> 12x40 is a liquid phase virgin activated carbon that has been manufactured to develop catalytic functionality.<sup>†</sup> The product is unique in that it concentrates reactants via adsorption and then promotes their reaction on the surface of the pores. CENTAUR 12x40 is produced from bituminous coal using a patented process. Although it is not impregnated with metals or alkali, it displays the catalytic functionality of these materials. In most cases, it can be reactivated and does not present the disposal concerns associated with impregnated carbons.

## APPLICATIONS

CENTAUR 12x40 can be utilized in the liquid phase for the promotion of oxidation, reduction, decomposition, substitution, and elimination reactions. Specific applications include chloramine, hydrogen sulfide, and iron removal from drinking water. This product is particularly suited for use in residential and commercial water filters, for treatment of process water in the bottling and soft drink industries, and for aquarium water treatment. CENTAUR 12x40 combines a fine pore structure for enhanced adsorption of trace contaminants with high catalytic activity for their elimination. Thermal reactivation is an option for recycle and reuse of this product to minimize operating costs and eliminate disposal concerns.

## DESIGN CONSIDERATIONS

CENTAUR 12x40 is intended primarily for use in liquid phase systems to promote catalytic reactions. Depending on the reactant concentrations, the required contact times are usually less than five minutes. The backwashed and drained density of the product is typically 33 lb/ft<sup>3</sup>. For additional information, please contact the Calgon Carbon sales office in your region.

## PACKAGING

33 lb (15.0 kg) Kraft bags

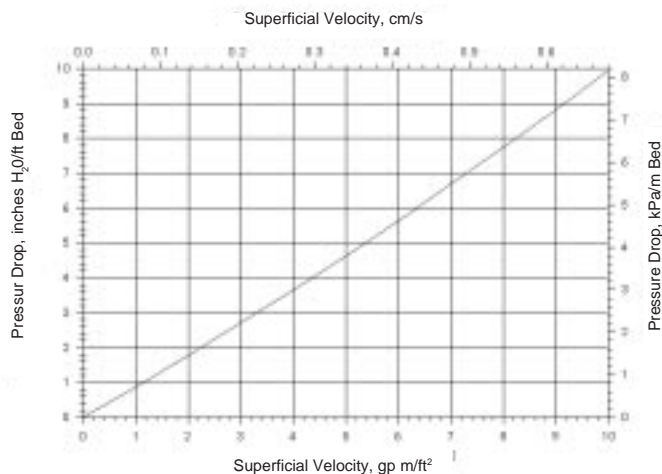
## PROPERTIES

Peroxide No.* .....	14 max
Iodine No., mg/g.....	825 min
Ash, by weight % .....	7 max
Moisture, wt %, as packed .....	3 max
Abrasion No. ....	75 min
Apparent Density, g/ml .....	0.56 min
<u>U.S. Sieve Series:</u>	
Percent on 12 mesh .....	5 max
Percent through 40 mesh .....	4 max

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

## PRESSURE DROP CURVE

NOMINAL PRESSURE DROP  
LIQUID DOWNFLOW THROUGH CENTAUR 12x40



## MANUFACTURING

Catlettsburg, KY



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

## FEATURES

- Catalytic Activity
- Not Impregnated
- Improved Trace Organic Capacity
- High Hardness
- Works at Low Oxidant Levels
- Simple Equipment Design
- Reduced Carbon Requirements
- Enhanced Performance

## BENEFITS

- Smaller system size; lower capital requirements
- No safety concerns with exotherms or toxicity
- More capacity per unit volume; lower use rates
- Reduced fines and handling losses
- 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.

## 1-800-4-CARBON

### Domestic Sales Offices

#### **Region I**

Bridgewater, NJ  
Tel (908) 526-4646  
Fax (908) 526-2467

#### **Region II**

Pittsburgh, PA  
Tel (412) 787-6700  
1-800-4-CARBON  
Fax (412) 787-6676

#### **Region III**

Richmond, CA  
Tel (510) 412-1010  
Fax (510) 412-5660

#### **Region IV**

Houston, TX  
Tel (713) 690-2000  
Fax (713) 690-7909

### International Sales Offices

#### **Australasia/Philippines/ Southeast Asia**

Calgon Carbon Asia  
Singapore Office  
Tel (65) 221-3500  
Fax (65) 221-3554

#### **Canada**

Calgon Carbon Canada, Inc.  
Bolton, Ontario  
Tel (905) 857-9915  
Fax (905) 857-9984

#### **China/Korea/Taiwan**

Calgon Carbon Asia  
Tokyo Office  
Tel 81 3 3560 7505  
Fax 81 3 3584 7202

#### **Europe**

Chemviron Carbon  
B-1200 Brussels, Belgium  
Tel 32 2 773 02 11  
Fax 32 2 770 93 94

#### **Japan**

Calgon Far East  
Tokyo Office  
Tel 81 3 3582 1861  
Fax 81 3 3586 9266

#### **Latin America**

Pittsburgh, PA  
Tel (412) 787-4519  
Fax (412) 787-4523

Calgon Carbon Corporation's activated carbon products are continuously being improved and changes may have taken place since this publication went to press.



CALGON CARBON CORPORATION