

CAL[®] 12x40

Granular Activated Carbon

Description

Calgon Carbon's CAL[®] is a granular decolorizing carbon designed for efficient use in fixed or moving beds for the purification and decolorization of many aqueous and organic liquids. Its particle size of 12x40 mesh has been selected to give a high rate of adsorption and low resistance to flow with liquids of low to medium viscosity.

CAL[®] carbon is made from selected grades of bituminous coal combined with suitable binders to give superior hardness and long life. Produced under rigidly controlled conditions by high temperature steam activation, this carbon provides high surface area, large pore volume, high density, and a pore structure optimal for the adsorption of color bodies and odor molecules from solutions.

Applications

One of the most common applications for CAL[®] is sugar refining, where liquors of exceptionally low floc characteristics must be produced. The high adsorption capacity of CAL[®] in fixed or moving beds permits continuous decolorizing cycles, after which the carbon can be thermally reactivated for repeated use. The advantages and economy of CAL[®] systems have also found wide acceptance in the chemical process industries for the decolorization and purification of numerous aqueous and organic liquids. Typical of these are glycerine, urea, monosodium glutamate, organic esters, soda ash, caustic liquors and muriatic acid.

Design Considerations

Economy of column operation: The use of highly activated Calgon Carbon granular products in fixed or moving beds provides the ultimate in countercurrent efficiency and simplicity of operation. The columns, which range in size from 1 to 12 feet in diameter and 8 to 80 feet in height, eliminate the need for slurry tanks, filter presses, and multiple treatment with powdered carbon. A properly designed system offers:

- A cleaner, continuous operation
- More efficient utilization of the activated carbon - more impurities adsorbed per pound of carbon
- Less equipment - less floor space
- Lower carbon dosage - lower costs
- Improved product quality - better colors, plus odor removal

Reactivation

In applications where the volume of carbon in service is large, further savings can be realized through the reactivation of CAL[®] for continued use in repeated cycles. Partial reactivation can sometimes be accomplished by chemical treatment, without removing the carbon from the columns. In other cases, it is more satisfactory to use high temperature processing equipment such as the Herreshoff multiple-hearth furnace, direct-fired rotary kilns, electric furnace, or fluid bed furnaces.

Specifications

Mean Particle Diameter, mm	0.9 - 1.1
Iodine Number, mg/g (min)	1000.
Molasses Number (min)	230
Ash, weight %	10.
Moisture, weight %, as packed (max)	2
Abrasion Number (min)	75
Screen Size, U. S. Sieve Series, weight % (max)	
Larger than 12 mesh	5
Smaller than 40 mesh	4

Features

- Bituminous-based raw material
- High density
- Coal is pulverized and reagglomerated with suitable binder

Benefits

- Generates the hardness and abrasion resistance required for thermal reactivation and minimizing generation of fines in operations requiring backwashing.
- Pore structure provides a wider range of contaminant removal capabilities relative to other starting materials
- The carbon wets readily and does not float, thus minimizing loss during backwash operations.
- Creates optimal transport paths for faster adsorption.

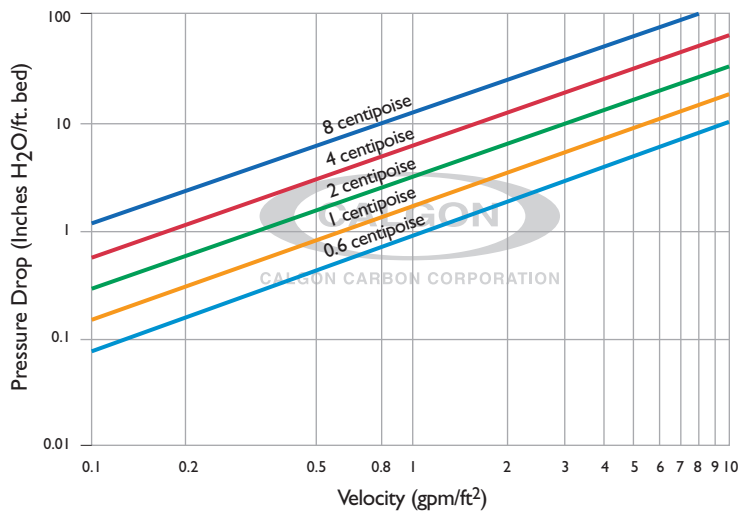
Carbon and Process Media

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

CAL[®] 12x40

Granular Activated Carbon

Pressure Drop Curve



Packaging

55 Pound (25 kg), 4-ply, Kraft Bags

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.

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



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