CANE CAL® 12x40

Granular Activated Carbon

Applications

- Food & Beverage
- Glycerine
- Corn Sweetener
- Edible Oils
- Sweeteners

Description

CANE CAL is a virgin granular activated carbon designed for treatment of cane sugar liquors. In addition to the decolorization capability available in a high surface area carbon, CANE CAL also has pH controlling ability as a result of the incorporation of magnesite within the carbon granules. CANE CAL is used in both fixed and moving beds for continuous decolorization, after which the exhausted carbon can be thermally reactivated for repeated use. The particle size of 12x40 has been selected to give a high rate of adsorption and low resistance to flow with liquors of medium viscosity.

CANE CAL 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 and reagglomerated, this carbon provides high surface area, large pore volume, high density, and a pore structure optimal for the adsorption of color bodies from solution. This product complies with the requirements for activated carbon as defined by the Food Chemicals Codex (FCC) (8th Edition) published by the U.S. Pharmacopeia.

Features / Benefits

- Reagglomerated metallurgical grade bituminous coal
- Manufactured with magnesite
- Uniformly activated granular product
- Reagglomeration creates optimal transport pores for faster adsorption
- High mechanical strength resulting in excellent reactivation performance, low attrition loss during handling and minimizing generation of fines in operations requiring backwashing
- Produces a strongly adsorbing pore structure optimal for the adsorption of color bodies
- Incorporation of magnesite into the granules' mechanical structure provides a buffer against the pH drop that accompanies granular activated carbons
- Cleaner, more efficient operation than with powdered carbons

Specifications	CANE CAL 12x40
Mean Particle Diameter, mm	0.80–1.00
Molasses Number	210 (min)
Moisture (As Packaged), wt%	2 (max)
Abrasion Number	65 (min)
Density (Apparent), g/cc	0.54 (min)
Magnesium [as MgO] (Calculated), wt%	5–8
12 US Mesh [1.70mm], wt%	5.0 (max)
< 40 US Mesh [0.425mm] (PAN), wt%	5.0 (max)

Safety Message

Wet activated carbon can deplete oxygen from air in enclosed spaces. If use in an enclosed space is required, procedures for work in an oxygen deficient environment should be followed.

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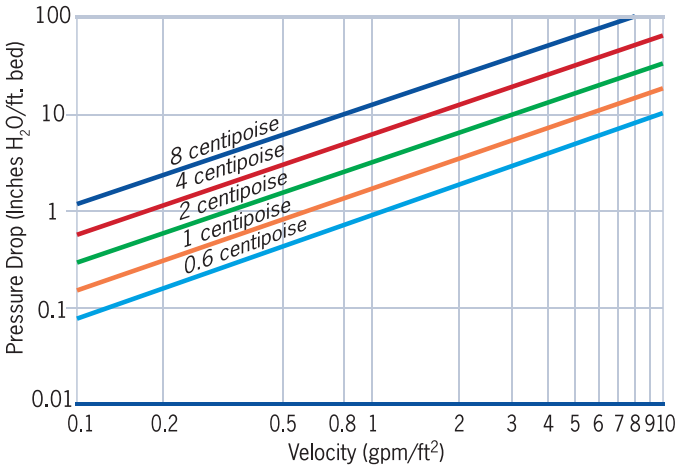
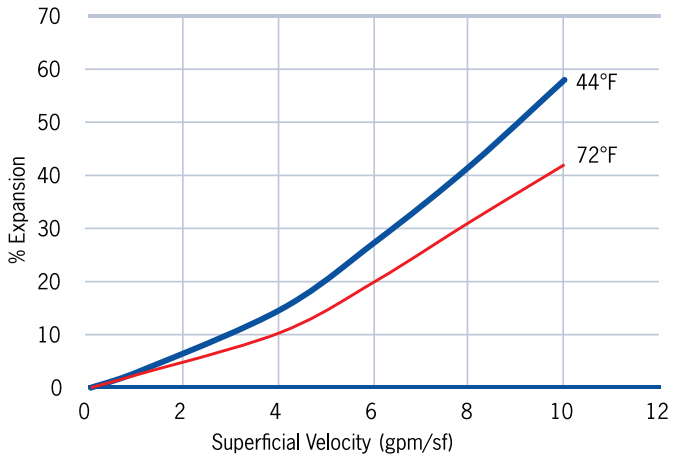
Typical Pressure Drop

Downflow pressure drop through a bed of CANE CAL 12x40



Typical Bed Expansion

Bed Expansion During Backwash of CANE CAL 12x40 with Water



Design Considerations

The flowrate and contact time needed to achieve the desired contaminant removal, liquid viscosity, and temperature are considerations in designing an efficient and cost-effective activated carbon system. The pressure drop per ft. of bed depth for CANE CAL 12x40 carbon is shown for different liquid viscosities.

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