

CAL[®] TR 12x40

Granular Activated Carbon

Applications



Food & Beverage



Glycerine



Corn Sweetener



Edible Oils



Sweeteners



Industrial Processes

CAL TR 12x40 carbon was developed for applications where a combination of adsorption rate and trace removal capacity is needed.

Typical applications for CAL TR 12x40 activated carbon include:

- Glycerin purification
- Viscous organics decolorization/purification
- Solvents and organic solution purification
- Kerosene decolorization

Description

CAL TR 12x40 is an agglomerated, coal-based granular activated carbon specially designed for the purification and decolorization of many aqueous and organic liquids. CAL TR 12x40 is a unique agglomerated coal-based granular activated carbon that combines excellent adsorption kinetics with an effective trace removal capacity. 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
- Uniformly activated granules
- High pore volume
- Dedusted product
- High mechanical strength and uniform transport pore distribution resulting in excellent reactivation performance, low attrition loss during handling and minimizing generation of fines in operations requiring backwashing
- Reagglomeration creates optimal transport pores for faster adsorption
- Produced with virtually no fines or dust and is therefore particularly suitable for odor removal and purification
- Combines excellent decolorization power with an effective trace removal capacity throughout the whole granule, not just on the outside due to reagglomeration
- Excellent adsorption properties and constant adsorption kinetics in a wide range of applications
- Allows a more efficient use of the carbon and results in a lower carbon dosage

Specifications

CAL TR 12x40

Mean Particle Diameter, mm	0.80–1.00
Iodine Number, mg/g	1050 (min)
Moisture (As Packaged), wt%	2 (max)
Abrasion Number	75 (min)
Density (Apparent), g/cc	0.54 (min)
FCC – Arsenic [AS], ppm	3 (max)
12 US Mesh [1.70mm], wt%	5.0 (max)
< 40 US Mesh [0.425mm] (PAN), wt%	4.0 (max)

Safety Message

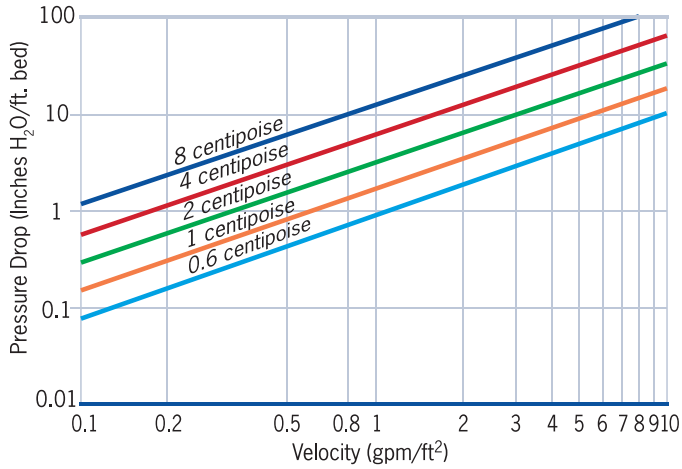
Wet activated carbon can deplete oxygen from air in enclosed spaces. If use in an enclosed space is required, procedures for work in an oxygen deficient environment should be followed.

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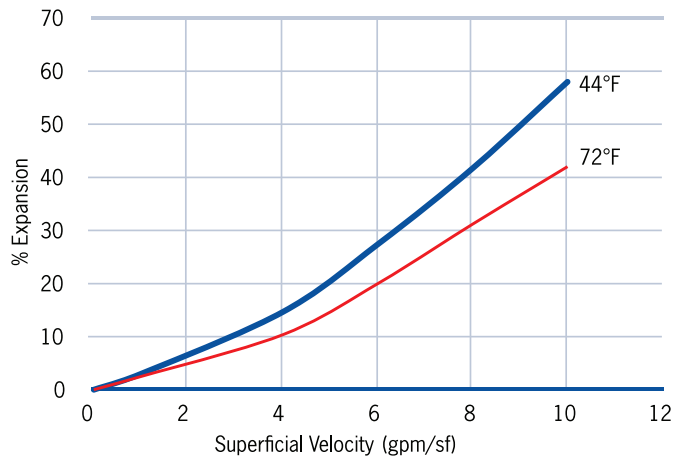
Typical Pressure Drop

Downflow pressure drop through a bed of CAL TR 12x40



Typical Bed Expansion

Bed Expansion During Backwash of CAL TR 12x40 with Water



Design Considerations

Design parameters for CAL TR depend on the application in which it is used. The following are ranges of typical operating conditions:

Empty bed contact time	30–240 min.
Bed depth	3–30 ft. (1–9 meters)
Linear velocity	0.25–2.0 gpm/ft ² (0.17–1.4 cm/sec)

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