

CARBSORB® 30 & 40

Granular Activated Carbon

Applications



Description

CARBSORB® 30 and 40 are bituminous coal based granular activated carbons designed to provide cost effective solution for water and liquid phase applications. CARBSORB® 30 and 40 offer a number of operating advantages over low cost liquid phase carbon that exist in the market.

Features

Coal based granular activated carbons have several properties which explain their performance in a wide range of applications.

- The adsorption capacity allows for effective removal of organic contaminants, pesticides, taste, and odour.
- Bituminous coal base produces a product with high hardness ensuring excellent resistance to abrasion caused by transport, mechanical stress, and backwashing.
- Product mesh size allows for limited pressure drop.

Selection

CARBSORB® 30 and 40 are suitable for use in the following applications:

- Potable water treatment
- Groundwater remediation
- Home water filtration
- Other industrial applications where removal of organics is required

CARBSORB® 30 and 40 have a typical mean particle diameter of 1.6 mm and 1.0 mm respectively. In general, the smaller the granule size, the better the adsorption performance, therefore CARBSORB® 40 should be selected. If the pressure drop is too high with CARBSORB® 40, CARBSORB® 30 should be selected.

Specifications

	CARBSORB® 30	CARBSORB® 40	Test Method
Iodine Number, mg/g	900	1000	ASTM
Moisture % (max)	2	2	ASTM
Hardness Number (min)	90	90	ASTM
Apparent Density, g/cc (min)	0.45 - 0.60	0.45 - 0.60	ASTM
Ash by weight % (max)	14	14	ASTM
Screen Size by Weight, US Sieve Series % (max)			
	15	5	ASTM
	On 8 mesh	On 12 mesh	
	4	4	ASTM
	Through 30 mesh	Through 40 mesh	

Typical Properties

	CARBSORB® 30	CARBSORB® 40	Test Method
Methylene blue number	230	260	CCC TM-11
Total Surface Area (N ₂ BET method), m ² /g	900	1000	BET

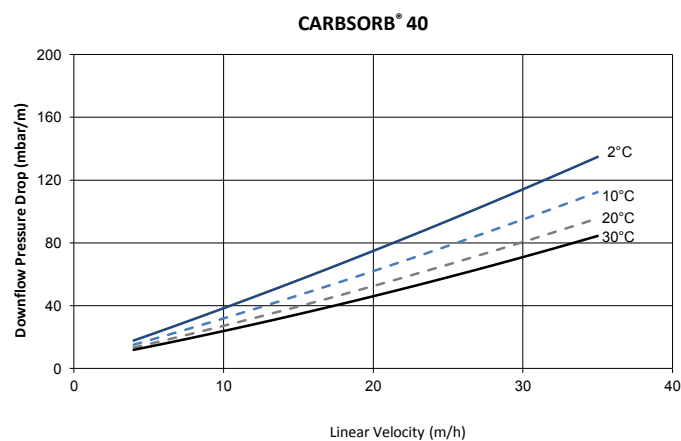
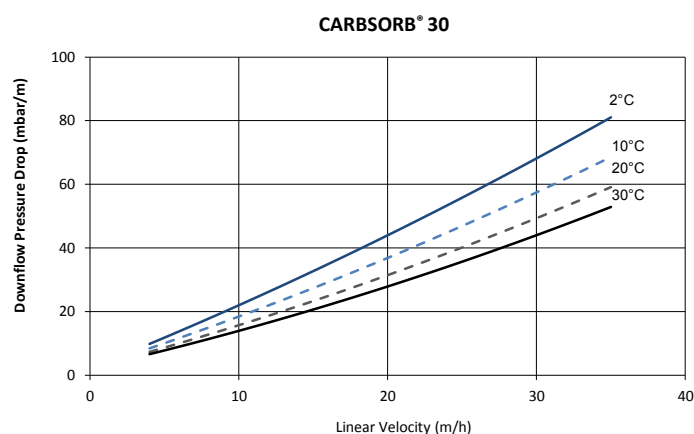
Safety Message

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.

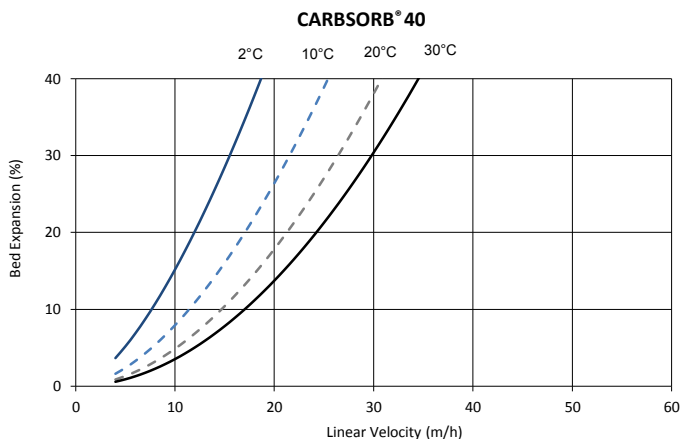
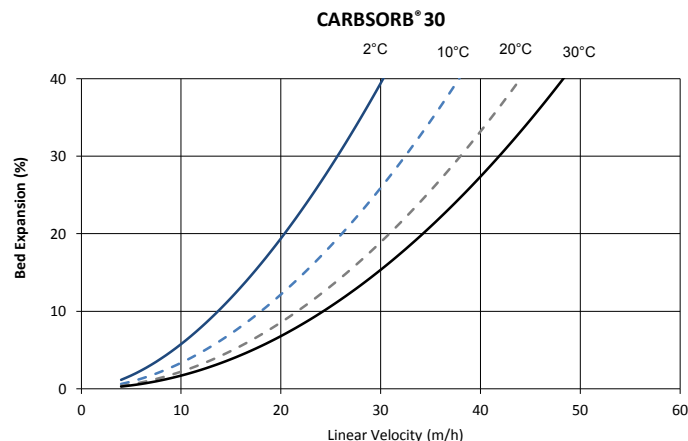
CARBSORB® 30 & 40

Granular Activated Carbon

Typical Pressure drop curve for a backwashed and segregated bed



Typical bed expansion curves for a backwashed and segregated bed



Design Information

The design of a granular activated carbon treatment system will depend on the nature of the stream to be treated. The following are typical design parameters for organics removal with

CARBSORB® 30 and 40:

- Superficial contact time 10- 60 min.
- Bed depth 1-4 m
- Linear velocity 5-15 m/h
- Backwash bed expansion 20 %

Packaging

- 25 kg bag
- Big bag
- Bulk tanker

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