

Product Data Sheet

AMBERCHROM[™] CG50 Chromatography Resin

Description AMBERCHROM[™] CG50 Chromatography Resin is a crosslinked methacrylic type of weakly acidic cation exchange resin, supplied as white insoluble beads.

The resin has a high concentration of carboxylic groups which serve as the ion exchange site of the resin.

Supplied in the hydrogen form, AMBERCHROM[™] CG50 can be converted readily to the sodium salt with a solution of sodium hydroxide. In the sodium form, the resin undergoes reactions typical of the salt with a weak acid and strong base.

Applications Isolation and concentration of antibiotics, basic amino acids, enzymes & peptides

Typical Properties

Physical Properties	
Copolymer	Crosslinked aromatic polymer
Matrix	Macroporous
Туре	Weak acid cation
Functional Group	Carboxylic acid
Physical Form	White opaque beads
Chemical Properties	
Ionic Form as Shipped	H⁺
Total Exchange Capacity	≥ 3.9 eq/L
Water Retention Capacity	≥ 46–55%
Particle Size §	
Particle Diameter	0.400–0.600 mm
Uniformity Coefficient	< 2
< 350 µm	20% max
> 1180 µm	5.0% max

§ For additional particle size information, please refer to the <u>Particle Size Distribution Cross Reference Chart</u> (Form No. 177-01775).

Suggested Operating Conditions

Minimum Bed Depth	600mm	
Flowrate	3 – 30 BV/h*	
Regenerant	HCI	H ₂ SO ₄
Concentration	2 – 5%	0.5 – 0.7%
Level	105% of the ionic load	105% of the ionic load
Minimum contact time	≥ 30 minutes	≥ 30 minutes

Hydraulic Characteristics

Figure 4 shows the bed expansion of AMBERCHROM[™] C50 weak acid cation resin as a function of backwash flow rate and water temperature. Figure 5 shows the pressure drop for AMBERCHROM[™] CG50 resin as a function of service flow rate and water temperature. Pressure drop data are valid at the start of the service run with clear water and a correctly classified bed.





Figure 5. Pressure Drop



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	 Please be aware of the following: WARNING: Oxidizing agents such as nitric acid attack organic ion exchange resins under certain conditions. This could lead to anything from slight resin degradation to

consult sources knowledgeable in handling such materials.

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a violent exothermic reaction (explosion). Before using strong oxidizing agents,

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