DuPont™ AmberChrom™ XT30 Chromatography Resin

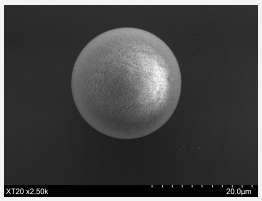
Reverse Phase Polymeric Resin for Purification and Polishing of Proteins, Peptides, and Oligonucleotides

Key Features

- Mechanical stability and chemical robustness to standard reversed-phase solvents and cleaning agents.
- Stable within a very broad pH range (up to pH 14), and easily cleaned in place (CIP) with most organic solvents and dilute acids and bases.
- Suitable for high-resolution, high-pressure chromatography.

Key Applications

- Capture, separation, and purification of peptides.
- Purification of oligonucleotides from impurities (failure sequences, DMT-off, oxidation products).
- Final polishing to remove trace impurities.



Typical Properties

Physical Properties	
Copolymer	Crosslinked divinylbenzene
Matrix	Macroporous
Type	Adsorbent
Physical Form	White, opaque, spherical beads
Nitrogen BET	
Surface Area	560 – 580 m^2/g
Total Pore Volume	0.61 mL/mL
Average Pore Diameter	300 Å

Chemical Properties	
Functional Group	None
Shipping Form	Dry
Chemical Resistance	Insoluble in dilute solutions of acids or bases and common solvents: IPA, ACN, MeOH
Particle Size	
Particle Diameter, mean	30 µm
20 – 40 µm	≥ 80%

Suggested Operating Conditions

Maximum Recommended Operating Temperature	60°C (140°F)
pH Range	1 – 14
Maximum Recommended Operating Pressure	60 bar (870 psi)

General Information

- DuPont™ Amberchrom™ XT30 chromatographic resins can be used with medium pressure hardware (5 to 20bar; 150 to 300 psi; 1000 kPa to 2000 kPa) or high pressure (HPLC column) up to 60 bar (880psi – 6000 kPa).
- Amberchrom™ XT30 resins are supplied in the dry form, and they have a hydration ratio of 0.28 g/mL or 280 g/Liter. A slurry concentration of 40-45% is recommended for optimal column packing results, but higher percentage could be used if necessary.
- Store the column or used bulk resin in 20% solvent (propanol, methanol, ethanol, or acetonitrile), preferably at 4 – 25°C.

Important Information

- Polymeric adsorbents, as produced, contain by-products resulting from the manufacturing process. The user must determine the extent to which organic by-product must be removed for any particular use and establish techniques to assure that the appropriate level of purity is achieved for that use.
- Like any chromatographic stationary phase, a conditioning step with the working solvent must be performed before operation.
- **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 a violent exothermic reaction (explosion). Before using strong oxidizing agents, consult sources knowledgeable in handling such materials.

Regulatory Note

DuPont can provide regulatory support for AmberChrom™ XT30 chromatography resins to end users under confidentiality, upon request.

Have a question? Contact us at:
www.dupont.com/water/contact-us

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