DuPont™ AmberChrom™ resin

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Product Data Sheet | Ion Exchange Resin

DuPont™ AmberChrom™ XT20 SL Chromatography Resin

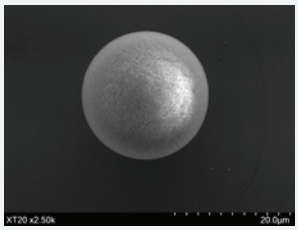
Reverse Phase Polymeric Resin for Purification and Polishing of Proteins, Peptides, and Oligonucleotides

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	550 – 600 m^2/g
Total Pore Volume	0.61 mL/mL
Average Pore Diameter	300 Å

Chemical Properties	
Functional Group	None
Shipping Form	Slurry in 20% ethanol in water
Chemical Resistance	Insoluble in dilute solutions of acids or bases and common solvents: IPA, ACN, MeOH

Particle Size	
Particle Diameter, mean	20 µm
15 – 30 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)

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General Information

- DuPont™ AmberChrom™ XT20 SL chromatography resins can be used with medium pressure hardware (5 to 20 bar; 150 to 300 psi; 1000 kPa to 2000 kPa) or high pressure (HPLC column) up to 60 bar (880 psi/6000 kPa).
- DuPont™ AmberChrom™ XT20 SL chromatography resins are supplied in slurry form. 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 between 4° C and 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 DuPont™ AmberChrom™ XT20 SL chromatography resins to end users under confidentiality, upon request.

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

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