



AMBERLITE™ FPX68

Macroporous Polymeric Adsorbent

Description

AMBERLITE™ FPX68 Resin is macroreticular adsorbent resin, designed for food and biopharmaceutical processing where local regulations allow for such use.

AMBERLITE FPX68 can be used for a wide variety of food processing applications to both recover high value materials, including proteins, and to purify and decolorize food and food additive streams. In addition, AMBERLITE FPX68 is an excellent choice for separation and purification of small molecular weight compounds such as antibiotics, vitamins, steroids, amino acids, enzymes and peptides.

AMBERLITE FPX68 has excellent physical and thermal stability making it ideal for use in column or batch systems over a large number of process cycles

Uses

Food processing and BioPharmaceutical

Typical Physical and Chemical Properties

Physical form	White translucent beads
Matrix	Macroporous aromatic polymer
Moisture holding capacity	61–67%
Shipping weight	690 g/L
Specific gravity	1.015–1.025
Particle size	
Harmonic mean size	0.350–0.600 mm
Uniformity coefficient	≤1.8
Fines content	< 0.250 mm : 5.0% max
Coarse beads	> 0.850 mm : 10.0% max
Maximum reversible swelling	See Table 1
Surface area ^[1]	≥ 450 m ² /g
Porosity ^[1]	≤ 1.4 cc/g
specification	DVB <50ppb

^[1] Values based on statistical quality control (SQC)

Test methods are available on request.

Suggested Operating Conditions

pH range	0–14
Maximum temperature limit	150°C
Minimum bed depth	750 mm (Capture) – 1500 mm (Chromatography)
Flow rate	
Loading	2–16 BV/h
Displacement	1–4 BV/h
Regeneration	1–4 BV/h

*1 BV (Bed Volume) = 1 m³ solution per m³ resin or 7.5 gals per ft³ resin

Regenerants

- Methanol or other water miscible organic solvents (ethanol, acetone, isopropanol, etc.)
- Dilute bases and/or dilute acids
- Hot water or steam for volatile materials

Limits of Use

For specific pharmaceutical and food processing applications, it is recommended that all potential users seek advice from Dow in order to determine the proper resin selection and usage.

Hydraulic Characteristics

Figure 4 shows the bed expansion of AMBERLITE™ FPX68 Resin as a function of backwash flow rate and water temperature. Figure 5 shows the pressure drop for AMBERLITE FPX68 Resin as a function of service flow rate and water temperature. Pressure drop data are valid at the start of the service run with a clear water and a correctly classified bed.

Figure 4. Bed Expansion

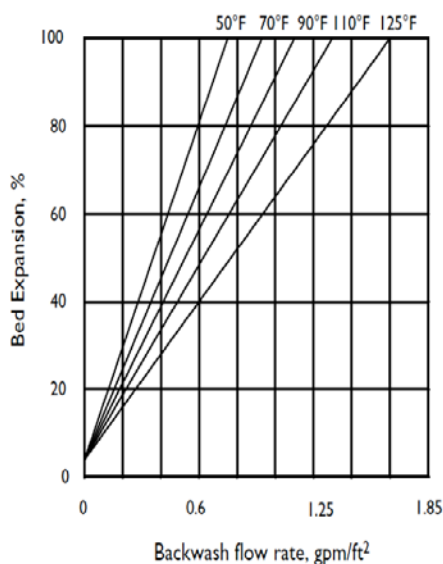
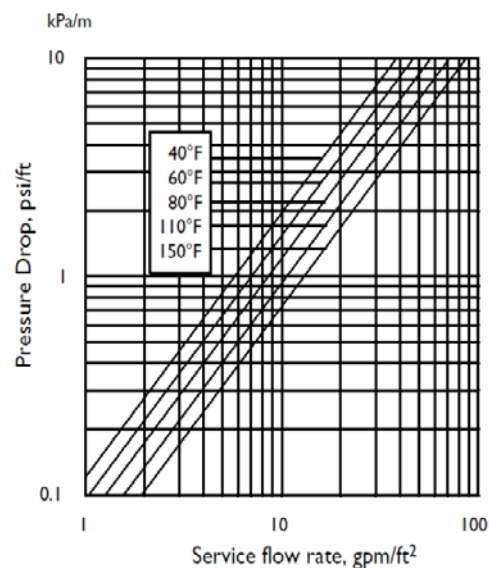


Figure 5. Pressure Drop



Note:

1 gpm/ft² = 2.45 m/h
 1 psi/ft = 22.73 kPa/m

Handling Precautions

Before using this product, or the analytical reagents required for its control, consult the Material Safety Data Sheet (MSDS)/Safety Data Sheet (SDS) for details on material hazards, recommended handling precautions and product storage.

CAUTION! Keep combustible and/or flammable products and their vapors away from heat, sparks, flames and other sources of ignition including static discharge. Processing or operating at temperatures near or above product flashpoint may pose a fire hazard. Use appropriate grounding and bonding techniques to manage static discharge hazards.

CAUTION! Failure to maintain proper volume level when using immersion heaters can expose tank and solution to excessive heat resulting in a possible combustion hazard, particularly when plastic tanks are used.

Storage

Store products in tightly closed original containers at temperatures recommended on the product label.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Electronic Materials Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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DOW™ Ion Exchange Resins
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