



AMBERSEP™ 252 H Resin

Industrial Grade Strong Acid Cation Exchanger

Description

AMBERSEP™ 252 H Resin is a macroporous cation exchange resin based on sulphonated crosslinked polystyrene. It has a moderate degree of crosslinking resulting in good regeneration efficiency. It is very resistant to osmotic shock and to mechanical attrition.

AMBERSEP 252 H Resin is designed for use in AMBERSEP units with AMBERSEP 359 inert resin and AMBERSEP 900 OH or AMBERSEP 900 SO4 strong base anion resins.

Typical Physical and Chemical Properties

Physical form	Light grey spherical beads
Matrix	Styrene divinylbenzene copolymer
Functional groups	-SO ₃ ⁻
Ionic form as shipped	H ⁺
Total volume capacity, min.	1.65 eq/L (36 kgr/ft ³)
Moisture retention capacity	52–58%
Shipping density	755 g/L (47 lbs/ft ³)
Particle size	
Harmonic mean diameter	0.90–1.10 mm
Uniformity coefficient, max.	1.4
< 0.60 mm	1.0% max
> 1.18 mm	10.0% max
Maximum reversible swelling	Na ⁺ → H ⁺ : 7%

Suggested Operating Conditions

Service flow rate	up to 120 BV*/h or 120 m/h	
Regenerants	HCl	H ₂ SO ₄
Flow rate	4–5 BV*/h (0.5–0.6 gpm/ft ³)	4–12 BV*/h (0.5–15 gpm/ft ³)
Concentration	5–6%	1.5–4%
Level	80–200 g/L (5–12.5 lbs/ft ³)	125–250 g/L (7.8–15.6 lbs/ft ³)
Minimum contact time	30 minutes	
Slow rinse	2 BV at regeneration flow rate	
Fast rinse	2–4 BV at service flow rate	

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

Hydraulic Characteristics

AMBERSEP 252 H gives a pressure drop of about 6 kPa/m bed depth per 10 m/h at 15°C (0.27 psi/ft bed depth per 4 gpm/ft² at 60°F).

A backwash flow rate of 30 m/h (12.2 gpm/ft²) gives a bed expansion of about 70% at 15°C/60°F.

Packaging

25 liter bags

Product Stewardship

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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.

DOW™ Ion Exchange Resins For more information about DOW™ resins, call the Dow Water & Process Solutions business:

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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.

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