

AMBERSEP® 252 H

Industrial Grade Strong Acid Cation Exchanger

PRODUCT DATA SHEET

AMBERSEP 252 H 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 is designed for use in Ambersep units with AMBERSEP 359 and AMBERSEP 900 OH or AMBERSEP 900 SO₄.

PROPERTIES

Matrix	Styrene divinylbenzene copolymer
Functional groups	-SO ₃ ⁻
Physical form	Light grey beads
Ionic form as shipped	H ⁺
Total exchange capacity ^[1]	≥ 1.65 eq/ L (H ⁺ form)
Moisture holding capacity ^[1]	52 - 58 % (H ⁺ form)
Specific gravity	1.18 to 1.22 (H ⁺ form)
Shipping weight	755 g/ L
Particle size	
Harmonic mean size	0.90 - 1.10 mm
Uniformity coefficient	≤ 1.4
Fines content ^[1]	< 0.600 mm : 1.0 % max
Coarse beads	> 1.180 mm : 10.0 % max
Maximum reversible swelling	Na ⁺ → H ⁺ : 7 %

^[1] Contractual value

Test methods available upon request

SUGGESTED OPERATING CONDITIONS

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

* 1 BV (Bed Volume) = 1 m³ solution per m³ resin

HYDRAULIC CHARACTERISTICS

AMBERSEP 252 H gives a pressure drop of about 6 kPa/ m bed depth per 10m/ h at 15°C.

A backwash flow rate of 30 m/ h gives a bed expansion of about 70 % at 15°C.

LIMITS OF USE

AMBERSEP 252 H is suitable for industrial uses. For other specific applications such as pharmaceutical, food processing or potable water applications, it is recommended that all potential users seek advice from Rohm and Haas in order to determine the best resin choice and optimum operating conditions.

All our products are produced in ISO 9002 certified manufacturing facilities.



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Ion exchange resins and polymeric adsorbents, as produced, contain by-products resulting from the manufacturing process. The user must determine the extent to which organic by-products must be removed for any particular use and establish techniques to assure that the appropriate level of purity is achieved for that use. The user must ensure compliance with all prudent safety standards and regulatory requirements governing the application. Except where specifically otherwise stated, Rohm and Haas Company does not recommend its ion exchange resins or polymeric adsorbents, as supplied, as being suitable or appropriately pure for any particular use. Consult your Rohm and Haas technical representative for further information. Acidic and basic regenerant solutions are corrosive and should be handled in a manner that will prevent eye and skin contact. Nitric acid and other strong oxidising agents can cause explosive type reactions when mixed with Ion Exchange resins. Proper design of process equipment to prevent rapid buildup of pressure is necessary if use of an oxidising agent such as nitric acid is contemplated. Before using strong oxidising agents in contact with Ion Exchange Resins, consult sources knowledgeable in the handling of these materials.

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