

AMBERLITE® 252RF H

Industrial Grade Strong Acid Cation Exchanger

PRODUCT DATA SHEET

AMBERLITE 252RF H is a macroporous cation exchange resin based on sulphonated cross-linked polystyrene, specially developed for packed and floating bed applications such as AMBERPACK systems.

AMBERLITE 252RF H has a moderate degree of crosslinking resulting in good regeneration efficiency. It is very resistant to osmotic shock and to mechanical attrition.

PROPERTIES

Matrix _____	Styrene divinylbenzene copolymer
Functional groups _____	-SO ₃ ⁻
Physical form _____	Light grey beads
Ionic form as shipped _____	H ⁺
Total exchange capacity ^[1] _____	≥ 1.7 eq/L (H ⁺ form)
Moisture holding capacity ^[1] _____	52 - 58 % (H ⁺ form)
Specific gravity _____	1.24 to 1.28 (Na ⁺ form)
Shipping weight _____	780 g/L
Particle size _____	
Uniformity coefficient _____	≤ 1.60
Harmonic mean size _____	600 - 800 µm
Fine contents ^[1] _____	< 0.300 mm : 0.1 % max
Maximum reversible swelling _____	Na ⁺ → H ⁺ : 10 %

^[1] Contractual value

Test methods are available on request.

SUGGESTED OPERATING CONDITIONS

Minimum bed depth _____	1400 mm
Service flow rate _____	5 to 40 BV*/h
Regenerant _____	HCl H ₂ SO ₄
Flow rate (BV/h) _____	4 to 6 4 to 12
Concentration (%) _____	4 to 10 1 to 5
Level (g/L) _____	45 to 100 50 to 120
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

AMBERLITE 252RF H gives a pressure drop of about 12 kPa/m bed depth per 10 m/h at 15°C. A backwash flow rate of 20 m/h gives a bed expansion of about 70 % at 15°C.

Pressure drop data are valid at the start of the service run with a clear water and a correctly classified bed.

LIMITS OF USE

AMBERLITE 252RF 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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