

PRODUCT DATA SHEET

AMBERLITE™ 252 Na

Industrial Grade Strong Acid Cation Exchanger

AMBERLITE 252 Na resin is a macroporous cation exchange resin based on sulphonated cross-linked polystyrene. It has a moderate degree of crosslinking resulting in good regeneration efficiency. It is very resistant to osmotic shock and to mechanical attrition. AMBERLITE 252 Na resin has

a reduced amount of fines, allowing it to be used for the treatment of highly concentrated solutions. AMBERLITE 252 Na resin is suited for use in a variety of demanding applications such as condensate treatment, and treatment of oxidising solutions.

PROPERTIES

Physical form _____	Light grey spherical beads
Matrix _____	Styrene divinylbenzene copolymer
Functional group _____	Sulfonate
Ionic form as shipped _____	Na ⁺
Total exchange capacity ^[1] _____	≥ 1.80 eq/L (Na ⁺ form)
Moisture holding capacity ^[1] _____	47 - 54 % (Na ⁺ form)
Shipping weight _____	810 g/L
Specific gravity _____	1.20 to 1.24 (Na ⁺ form)
Particle size	
Uniformity coefficient _____	≤ 1.8
Harmonic mean size _____	0.590 – 0.840 mm
< 0.300 mm ^[1] _____	1.0 % max

^[1] Contractual value
Test methods are available on request.

SUGGESTED OPERATING CONDITIONS

Maximum operating temperature _____	135 °C
Minimum bed depth _____	700 mm
Service flow rate _____	5 to 170 BV/h or 5 to 120 m/h
Regeneration	
Regenerant _____	NaCl HCl H ₂ SO ₄
Level (g/L) _____	80 to 400 45 to 150 50 to 200
Concentration (%) _____	10 4 to 10 1 to 5
Minimum contact time _____	30 minutes
Slow rinse _____	2 BV at regeneration flow rate
Fast rinse _____	2 to 4 BV at service flow rate

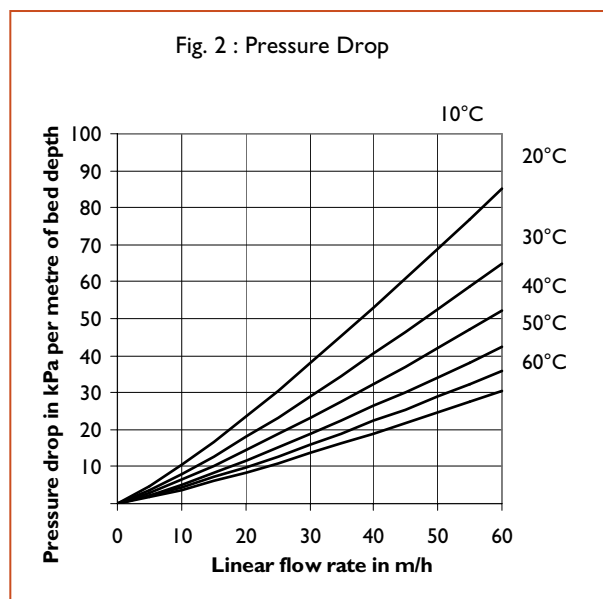
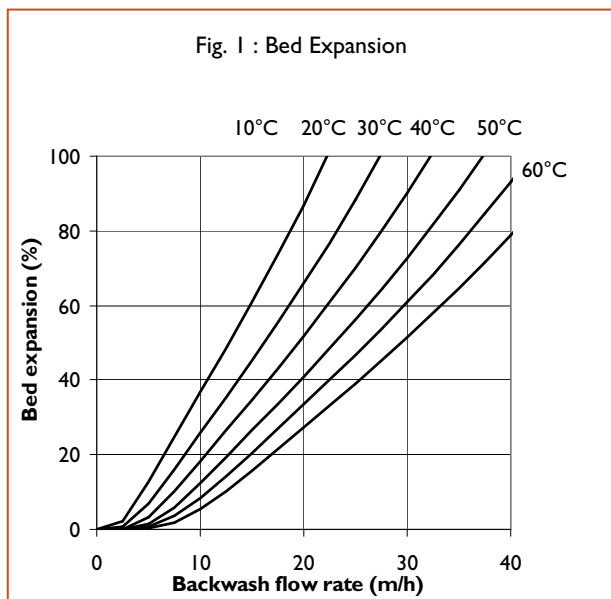
* 1 BV (Bed Volume) = 1 m³ solution per m³ resin

LIMITS OF USE

AMBERLITE 252 Na resin 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.

HYDRAULIC CHARACTERISTICS

Figure 1 shows the bed expansion of AMBERLITE 252 Na resin as a function of backwash flow rate and water temperature. Figure 2 shows the pressure drop data for AMBERLITE 252 Na 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.



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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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