

AMBERLITE™ MB20

Industrial Grade -Regenerable Mixed Bed Resin

AMBERLITE MB20 resin is an ionically equilibrated mixed bed resin. It is a fully regenerated, ready to use mixture of a strongly acidic cation exchanger with a strongly basic type 1 anion exchanger.

AMBERLITE MB20 resin has been developed for the production of high purity water. It can be used for all applications requiring totally demineralised water, free of silica and of carbon dioxide.

PROPERTIES

Composition in volume ^[1] _____	Cation component: 38 to 44 %.
	Anion component: 56 to 62 %.
Ionic form as shipped _____	H ⁺ / OH ⁻
Shipping weight _____	715 g/L
Particle size	
<0.300 mm _____	3 % max

^[1] Contractual value

Test methods are available on request.

SUGGESTED OPERATING CONDITIONS

Maximum operating temperature _____	60°C
Minimum bed depth _____	700 mm
Service flow rate _____	20 to 40 BV*/h
Regeneration	
Regenerants _____	Cation component: HCl or H ₂ SO ₄
	Anion component: NaOH

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

PERFORMANCE

Operating capacity

The following formula gives an approximate determination of volume that can be treated:

$$BV = \frac{500}{TDS}$$

BV (Bed Volume) is the number of litres of a water containing a TDS (Total Dissolved Solids) given in meq/L that can be demineralised with one litre of the resin mixture when run to exhaustion.

Regeneration

If required, AMBERLITE MB20 resin can be regenerated after exhaustion. Both components must be separated by backwashing and regenerated separately.

Treated water conductivity

In polishing applications, say with a feed of less than 10 µS/cm, the resins AMBERLITE MB20 resin should produce a water with less than 0.1 µS/cm. In cases where the feed water has high conductivity (up to say 500 µS/cm) the water should still have less than 1 µS/cm.

LIMITS OF USE

AMBERLITE MB20 resin is suitable for industrial uses. For all 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.



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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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