



PMB101-3

Mixed Bed Resin

16.6 Megohm-cm

High Quality & Cost-Effective

Product Description

Pure PMB101-3 is a high capacity mixed bed ion exchange resin consisting of a mixture of a gel, Type I strong base anion resin and a gel strong acid cation resin for direct purification of water. The conductivity is 0.06 us/cm max.

Applications

Pure PMB101-3 is suitable for use in regenerable or non-regenerable cartridges, for deionization with high silica removal efficiency and refine water for electrical home applications.

Typical Physical & Chemical Characteristics	
Polymer Matrix Structure	Gel Polystyrene crosslinked with DVB
Functional Group: Cation	$\text{RSO}_3^- \text{H}^+$
Functional Group: Anion	$\text{R}_4 \text{N}^+ \text{OH}^-$
Ionic Form, as shipped	H^+ / OH^-
Physical Form And Appearance	Spherical Beads
Sphericity	95% min.
Screen Size Range --- U.S. Standard Screen	16-50 mesh, wet
Particle Size Range	+1.2 mm < 5%, -0.3 mm < 1%
Volume Ratio (as shipped) Cation Anion	40% PC003H 60% PA101OH
Total Exchange Capacity Cation (in sodium form) Anion (in chloride form)	2.0 eq/l min. 1.3 eq/l min.
Water Retention „H“ form „OH“ form	45-50% 53-60%
Shipping Weight (Approx.)	700-740 g/l (44-46 lbs/cu.ft)
pH Range	0-14



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Suggested Operating Conditions

Temperature Limit: Non-regenerative bed Regenerative bed	100°C (212°F) max. 60°C (140°F) max.
Minimum Bed Depth	0.7 m (2.3 ft)
Service Flow Rate	20-60 BV/h (2.5-5 gpm/ft ³)

Suggested Operating Capacity

The operating capacity of the mixed bed can be estimated using the following formula, which gives an approximate determination of volume of water that can be treated:

$$BV^* = 20000 / \text{conductivity } (\mu\text{s/cm})$$

Note: Where BV* (Bed Volume) is the number of liters of a feed water containing a conductivity given in $\mu\text{s/cm}$ that can be demineralized with one liter of the resin mixture when run to treated water conductivity 0.06 $\mu\text{s/cm}$.

This data is tested under below condition:

- A. feed water containing a conductivity as 100 $\mu\text{s/cm}$
- B. service flow rate as 60BV/h