

AMBERLITE™ PWA9 Resin

Drinking Water Grade

Natural Organic Matter Removal

AMBERLITE PWA9 resin is an anion exchange resin that can be used to remove Natural Organic Matter from drinking water. The high porosity of

AMBERLITE PWA9 allows excellent removal of large organic molecules. This product is especially effective for colour removal from surface water.

PROPERTIES

Matrix _____	Cross linked copolymer
Physical form _____	White opaque beads
Total exchange capacity _____	≥ 0.8 eq/L
Moisture holding capacity _____	66 – 72 %
Shipping weight _____	720 kg/m ³ (45 lb/ft ³)
Particle size _____	
Screen grading _____	0.3 – 1.18 mm (16 – 50 mesh US Std Screens)
Fines content _____	< 0.355 mm: 1% maximum

SUGGESTED OPERATING CONDITIONS

Please contact your Rohm and Haas representative for system design and application testing details.

Maximum operating temperature _____	40°C	(110°F)
Minimum bed depth _____	1000 mm	(36 inches)
Typical service flow rate _____	5 – 30 BV/h*	(0.5 – 4 gpm/ft ³)
Regenerant (for demineralization) _____	NaCl	
Concentration _____	10 %	
Minimum level _____	160 g/L	(10 lbs/ft ³)
Minimum contact time _____	60 minutes	

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

COMMISSIONING AND LIMITS OF USE

AMBERLITE PWA9 resin is suitable for use in potable water applications after performing a full regeneration cycle at a dosage of 160 g of NaCl per liter of resin followed by an adequate rinse to remove excess of brine.

The operating capacity of AMBERLITE PWA9 resin depends on the operating conditions and the feed water conditions.

REGULATORY

Please contact your Rohm and Haas representative for certification information.

Resin products are manufactured in ISO 9001 certified facilities.

HYDRAULIC CHARACTERISTICS

Figure 1 and Figure 2 show the pressure drop data for AMBERLITE PWA9 resin as a function of flow rate and water temperature. Pressure drop data are valid at the start of the service run with clean water and a correctly classified bed. Figure 3 and Figure 4 show the bed expansion of AMBERLITE PWA9 resin as a function of backwash flow rate and water temperature.

Figure 1 Pressure Drop (metric)

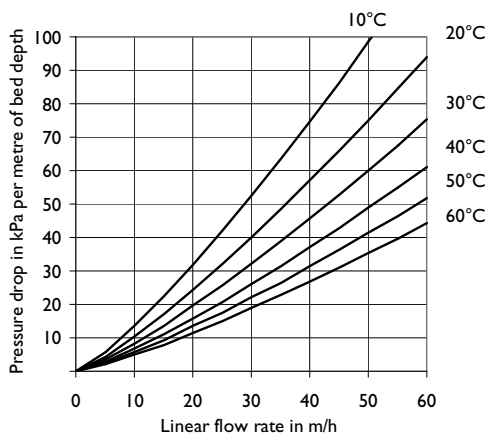


Figure 2 Pressure Drop (US units)

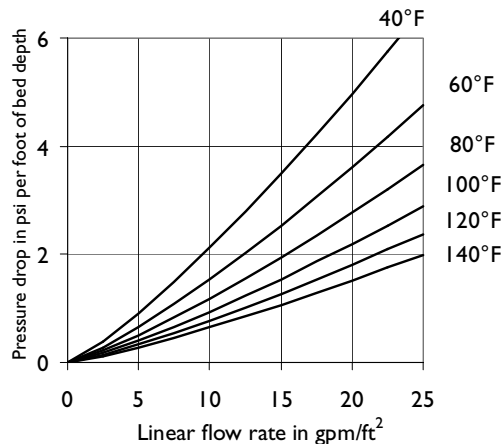


Figure 3 Bed Expansion (metric)

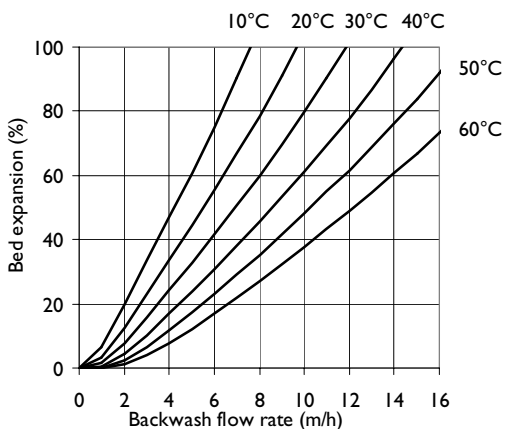
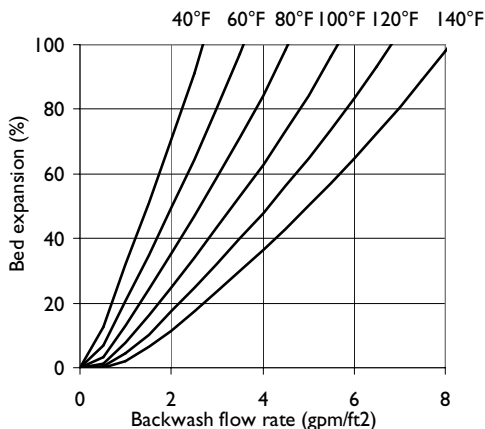


Figure 4 Bed Expansion (US units)



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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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