

AMBERLITE™ PWA2 Resin Drinking Water Grade
Perchlorate Selective**Description**

AMBERLITE PWA2 resin is an anion exchange resin specifically designed for the selective removal of perchlorate from drinking water.

Unlike conventional anion exchange resins, AMBERLITE PWA2 resin shows excellent perchlorate capacity in the presence of competing ions such as sulfate and nitrate. This high capacity makes AMBERLITE PWA2 resin the perfect choice for a simple, once through perchlorate removal process for municipal water treatment systems.

Typical Properties

These properties are typical but do not constitute specifications.

Matrix	Crosslinked copolymer	
Physical form	Pale yellow translucent beads	
Total exchange capacity	≥ 0.6 eq/L	
Moisture holding capacity	34 - 42 %	
Shipping weight	677 kg/m ³	(42 lb/ft ³)
Particle size		
Screen grading	0.3 - 1.2 mm	(16 - 50 mesh US Std Screens)
Fines content	< 0.300 mm: 10 % max.	

Suggested Operating Conditions

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

Maximum operating temperature	75°C	(170°F)
Minimum bed depth	610 mm	(24 inches)
Typical service flow rate	24 m/h	(10 gpm/ft ²)

Commissioning and Limits of Use

AMBERLITE PWA2 resin is suitable for use in potable water applications after an initial commissioning rinse of 20 bed volumes of water at ambient temperature at service flow rate.

The operating capacity of AMBERLITE PWA2 resin depends on the operating conditions and the feed water conditions.

Regulatory

AMBERLITE PWA2 resin is certified to ANSI / NSF Standard 61 for drinking water components. Please contact your Rohm and Haas representative for additional 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 PWA2 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 PWA2 resin as a function of backwash flow rate and water temperature.

Figure 1 Pressure Drop (metric)

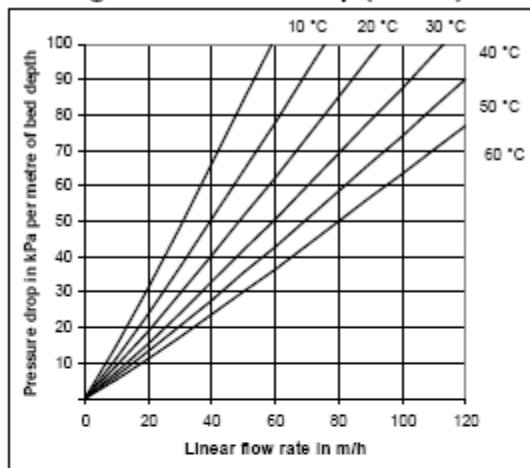


Figure 2 Pressure Drop (US units)

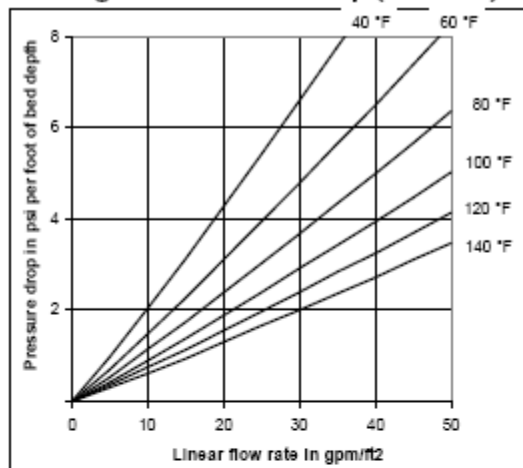


Figure 3 Bed Expansion (metric)

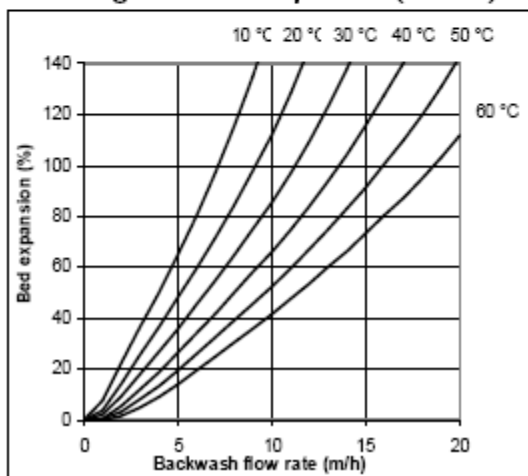
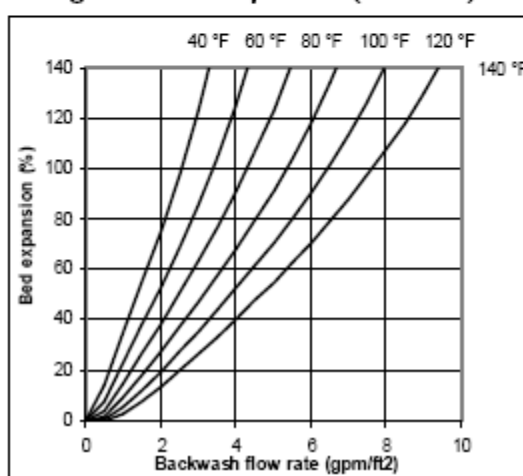


Figure 4 Bed Expansion (US units)



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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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