

PRODUCT DATA SHEET

AMBERLITE™ PWC14 Resin

Drinking Water Grade

Municipal Water Softening

AMBERLITE PWC14 resin is a high strength, cation exchange resin designed for municipal water softening. While the principal application of AMBERLITE PWC14 resin is municipal water softening, it can be used to remove radium via the

softening process. AMBERLITE PWC14 is especially effective when used in the Advanced Amberpack™ Municipal system.

PROPERTIES

Matrix _____	Cross linked copolymer
Physical form _____	Amber beads
Total exchange capacity _____	≥ 1.9 eq/L
Moisture holding capacity _____	41 – 49%
Shipping weight _____	817 kg/m ³ (51 lb/ft ³)
Particle size _____	
Screen grading _____	0.3 – 1.2 mm (16 – 50 mesh US Std Screens)
Fines content _____	<0.300 mm: 2% max

SUGGESTED OPERATING CONDITIONS

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

Maximum operating temperature _____	120 °C (250 °F)
Minimum bed depth _____	610 mm (24 inches)
Typical service flow rate _____	5 – 40 BV/h* (0.6 – 5 gpm/ft ³)
Regenerant _____	NaCl
Minimum level _____	80 g/l (5 lb/ft ³)
Concentration _____	10 – 15 %
Minimum contact time _____	20 minutes
Rinse water requirements _____	3 – 10 bed volumes (25 – 75 gal/ft ³)

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

COMMISSIONING AND LIMITS OF USE

AMBERLITE PWC14 resin is suitable for use in potable water applications after an initial commissioning rinse of 10 bed volumes of water at ambient temperature within 1 hour.

The operating capacity of AMBERLITE PWC14 resin depends on the operating conditions and the feed water conditions.

REGULATORY

AMBERLITE PWC14 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 PWC14 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 PWC14 resin as a function of backwash flow rate and water temperature.

Figure 1 Pressure Drop (metric)

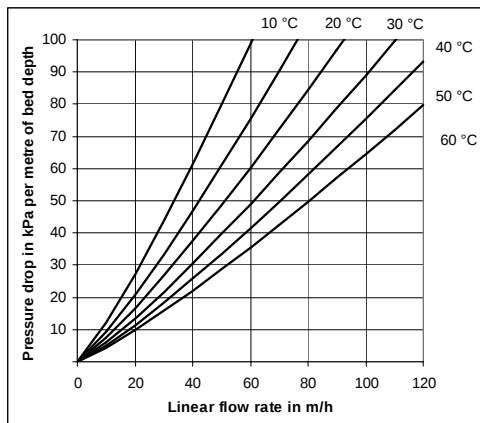


Figure 2 Pressure Drop (US units)

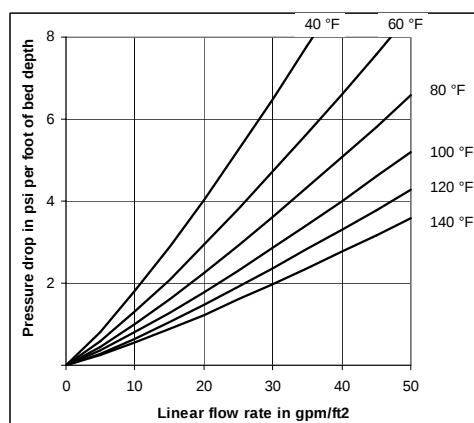


Figure 3 Bed Expansion (metric)

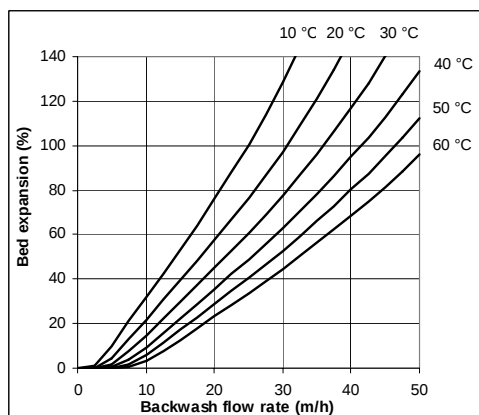
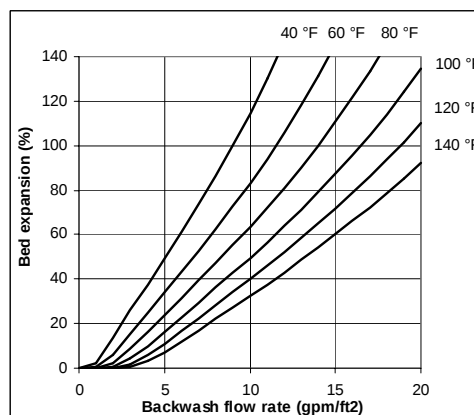


Figure 4 Bed Expansion (US units)



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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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