



Tel: +44 (0) 1706 869777
 E-mail: sales@desal.co.uk
 Web: www.desal.co.uk

AMBERLITE™ PWA10 Resin

Drinking Water Grade

Introduction

Boron Selective

AMBERLITE PWA10 resin is a unique drinking water grade ion exchange resin designed for the removal of boron from drinking water. The resin can be regenerated using a two-step process consisting of a regeneration step to displace the boron followed by a conversion step.

AMBERLITE PWA10 resin has been shown to be nearly universal in its high selectivity for boron. Salts, including bases, do not interfere significantly. The concentration of boric acid or the salt background in water also has little effect upon the selectivity. This high selectivity for boron and low risk of interference makes AMBERLITE PWA10 resin highly suitable for removal of boron from water derived from desalination.

Properties

Matrix	Macroporous polystyrene
Physical form	Opaque beige beads
Total exchange capacity	≥ 0.7 eq/L
Moisture holding capacity	48 – 54%
Shipping weight	700 kg/m ³ (44 lb/ft ³)
Particle size	
Screen grading	0.3 - 1.2 mm (16 to 50 mesh US Std Screens)
Fines content	<0.300 mm: 1% max

Suggested Operating Conditions

Maximum operating temperature	45°C (110°F)
Minimum bed depth	800 mm, recommended 1400 mm (32 in / 56 in)
Typical service flow rate	5 to 35 BV/h* (0.6 – 4.5 gpm/ft ³)
Regeneration	Please contact a representative for details

Commissioning and limits of use

AMBERLITE PWA10 resin is suitable for use in potable water applications after an initial commissioning soak in water for 24 hrs followed by a rinse of 5 bed volumes (35 gal/ft³) of potable water at ambient temperature.

The operating capacity of AMBERLITE PWA10 resin depends on the operating conditions.

Regulatory

Please contact Dow Water & Process Solutions for certification information.

Resin products are manufacturing in ISO 9001 certified facilities.

Hydraulic Characteristics

Figure 1 and Figure 2 show the pressure drop data for AMBERLITE PWA10 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 PWA10 resin as a function of backwash flow rate and water temperature.

Figure 1 Pressure Drop (metric)

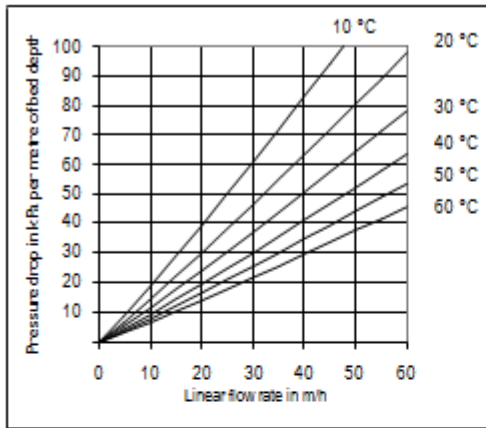


Figure 2 Pressure Drop (US units)

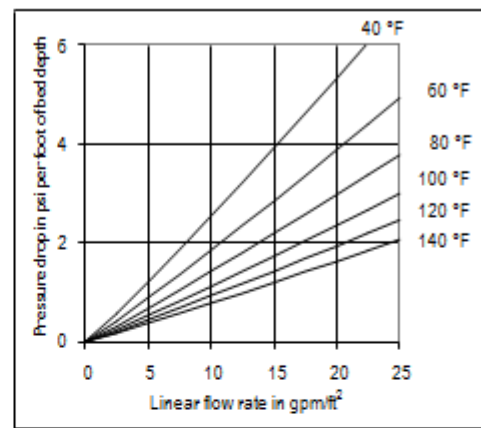


Figure 3 Bed Expansion (metric)

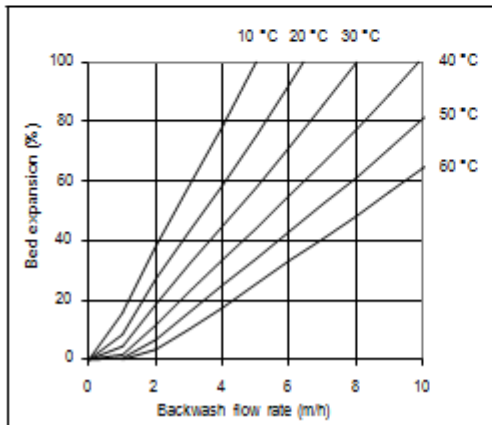
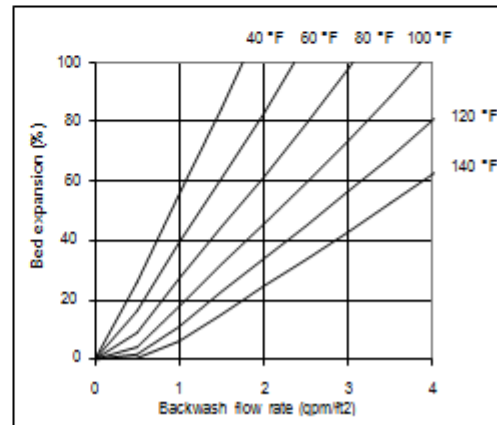


Figure 4 Bed Expansion (US units)



For more information about DOW™ resins, call the Dow Water & Process Solutions business:

North America: 1-800-447-4369
 Latin America: (+55) 11-5188-9222
 Europe: +800-3-694-6367
 Italy: +800-783-825
 South Africa: +0800 99 5078
 Pacific: +8007776 7776
 China: +400 889-0789

<http://www.dowwaterandprocess.com>

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