PRODUCT INFORMATION

DYNASPHER BO780-WT

CHELANTING RESIN FOR BORON REMOVAL

WATER TREATMENT SOLUTION

DESCRIPTION

DYNASPHER BO780-WT is a macroporous chelating resin based on styrene and DVB with n-glucamine functional groups suitable for the removal of boron from drinking and waste water In some drinking and waste waters, the concentration of Boron exceeds the limits estabilished by law. In the case of drinking water it is a few micrograms / liter while in waste water it is a few milligrams / liter. DYNASPHER BO780-WT is a chelating resin with excellent exchange kinetics which is used to reach the minimum allowed values, the exchange capacity of the resin increases at reduced specific flow rates. DYNASPHER BO780-WT, due to its macro porous structure with high DVB content, has a high mechanical resistance and a high regenerative efficiency.

SYSTEM DESIGN

Co - current / Counter current / Floating bed / Blocked bed

PRINCIPAL APPLICATIONS

- Potable water
- Waste water
- Sugar solutions
- Pharmaceutical industry
- Metallurgical industry
- Waste recycling industry
- Boric acid recovery

REGULATORY

- F.D.A. – CFR 21 – 173.25
- Codes Alimentarius – Inventory of Processing Aids – CAC/MISC3
- European Resolution AP (97) – 1 regarding the TOC (Total Organic Carbon) realeased according AFNOR method (method T90 – 601)

TYPICAL PACKAGING

- 1 ft³ Bag
- 25 lt Bag
- 5 ft³ Drum (Fiber)
- 1 m³ Big-bag
- 42 ft³ Big-bag

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TYPICAL CHARAPTERISTICS

PHYSICAL CHARAPTERISTICS

Copolymer	Polystyrene DVB
Matrix	Macroporous
Type	Chelanting boron resin
Functional Group	N-Methylglucamine
Physical Form	White opaque spherical beads

CHEMICAL CHARAPTERISTICS

Ionic Form as Shipped	Free base
Total Exchange Capacity	≥ 0,8 eq/lt
Water Retention	45.0 - 55.0 %

PARTICLE SIZE

Particle Diameter	0,315 - 1.25 mm
Uniformity Coefficient	1.4
< 300 µm	≤ 0.1 %
> 1180 µm	≤ 1.0 %

STABILITY

Whole Uncracked Beads	≥ 99 %
Swelling	FB ⟶ Cl- < 20 %

DENSITY

Particle Density	1050 - 1150 g / ml
Shipping Weight	650 - 750 g / lt

For additional size in formation, please refer to the our Technical Dept.

SUGGESTED OPERATING CONDICTIONS

Max operating temperature	60° C (140° F)
pH Range	4 - 10

For additional praticle size information regarding recommended minimum bed depth, operating conditions, and regeneration conditions for Layered or Mixed bed, please refer to our tecnical dept.

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HYDRAULIC CHARACTERISTICS

Estimated bed expansion of DYNASPHER BO780-WT as a function of backwash flowrate and temperature is show in figure 1.

Estimated pressure drop for DYNASPHER BO780-WT as a function of service flowrate and temperature is show in figure 2.

These pressure drop expectations are valid at the start of the service run with clean water and well – classified bed.

Figure 1: Back wash expansion

Temperature = 5 °C - 35 °C (41 °F - 95 °F)

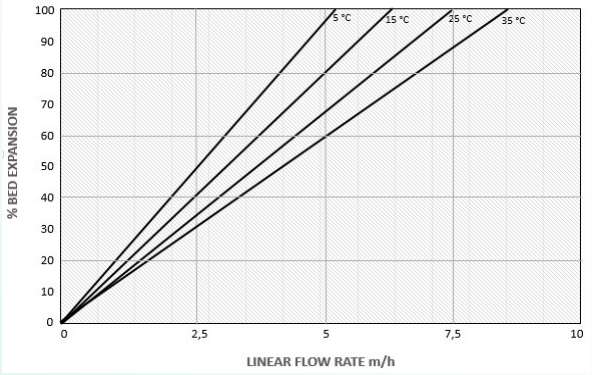
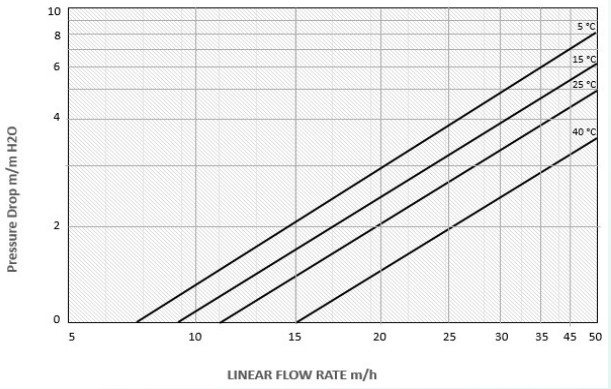


Figure 2: Pressure Drop

Temperature = 5 °C - 35 °C (41 ° F - 95 °F)



CUSTOMER NOTICE

STORAGE

It is recommended to store ion exchange resins at temperatures above the freezing point of water under roof in dry conditions whithout exposure to direct sunlight. If resin should become frozen, it should not be mechanically handled and left to thaw out gradually at ambient temperature. It must be completely thawed before handling or use. No attempt should be made to accelerate the thawing process.

DISPOSAL

In the European Community Ion exchange resins have to be disposed, according to the European waste nomenclature which can be accessed on the internet – site of the European Union.

TOXICITY

The safety data sheet must be observed. It contains additional data on product description, transport, storage, handling, safety and ecology.

WARNING

Oxidizing agents such as nitric acid attack organic ion exchange resins under certain conditions. This could lead to anything from slight resin degradation to a violent exothermic reaction (explosion). Before using strong oxidizing agents, consult sources knowledgeable in handling such materials.