PRODUCT DATA SHEET

Purolite™ Puromet™ MTS9100

Polyacrylic Porous, Amidoxime Chelating Resin

PRINCIPAL APPLICATIONS

- Precious Metals Recovery
- Chromium III baths purification
- Gallium Removal from Bayer Liquor

TYPICAL PACKAGING

- 1 ft³ Sack
- 25 L Sack
- 5 ft³ Drum (Fiber)
- 1 m³ Supersack
- 42 ft³ Supersack

TYPICAL PHYSICAL & CHEMICAL CHARACTERISTICS:

Polymer Structure	Crosslinked polyacrylic
Appearance	Spherical Beads
Functional Group	Amidoxime
Ionic Form	FB form
Copper Capacity (min.)	40 g/L
Moisture Retention	52 - 60 % (FB form)
Particle Size Range	300 - 1200 µm
< 300 µm (max.)	1 %
Uniformity Coefficient (max.)	1.7
Reversible Swelling, FB → Cl^- (max.)	10 %
Specific Gravity	1.19
Shipping Weight (approx.)	740 - 790 g/L (46.2 - 49.4 lb/ft³)

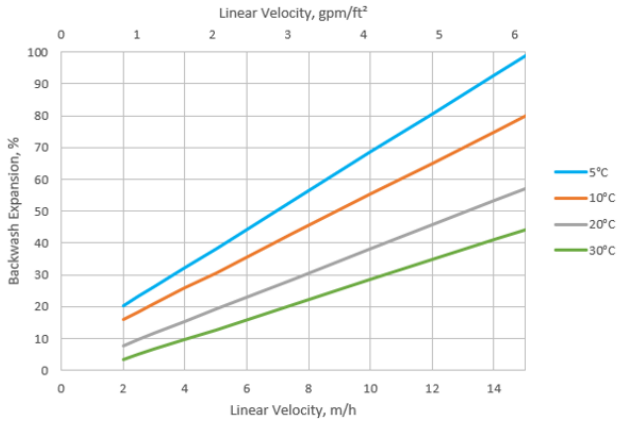
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Hydraulic Characteristics

BACKWASH

A 20 BV downflow rinse is required before the vessel is put into service. This rinse can be done onsite or offsite pre-installation. Once the resin is put into service, backwashing is not permitted as this will lead to shortened bed life.This is a uniform grade resin with beads of similar size and will not require backwashing for classification / stratification before use. If it is determined, before startup, that air bubbles or particulate matter are trapped within the bed, then backwashing can be done. In that case, the resin bed should be expanded by 50-70% for 10-15 minutes. Please note that bed expansion increases with higher flow rate and lower water temperature. Avoid loss of resin through the top of the vessel by over expansion of the bed.

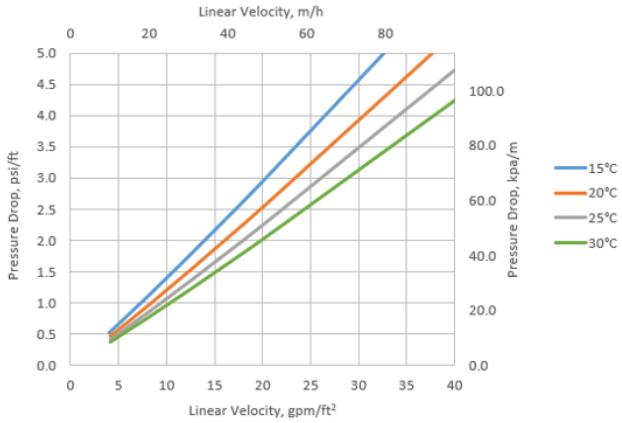
BACKWASH EXPANSION OF RESIN BED



PRESSURE DROP

The pressure drop across a bed of ion exchange resin depends on the particle size distribution, bed depth, and voids volume of the exchange material, as well as on the flow rate and viscosity of the influent solution. Factors affecting any of these parameters—such as the presence of particulate matter filtered out by the bed, abnormal compressibility of the resin, or the incomplete classification of the bed—will have an adverse effect, and result in an increased head loss. Depending on the quality of the influent water, the application and the design of the plant, service flow rates may vary from 10 to 40 BV/h.

PRESSURE DROP ACROSS RESIN BED



Ecolab is a global developer, manufacturer, and supplier of Purolite™ Resins including ion exchange, catalyst adsorbent and advanced polymers that make the world cleaner and healthier.

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