## PRODUCT DATA SHEET

# Purolite<sup>®</sup> A847

Polyacrylic Gel, Weak Base Anion Resin, Free Base form

### **PRINCIPAL APPLICATIONS**

Aqueous and non aqueous applications

### **ADVANTAGES**

- Excellent resistance to organic fouling
- Unique resistance against osmotic shock attrition
- Exceptional physical stability
- Efficient regeneration
- High purity

## **REGULATORY APPROVALS**

- IFANCA Halal Certified
- Kosher Certified

### **TYPICAL PACKAGING**

- 1 ft<sup>3</sup> Sack
- 25 L Sack
- 5 ft<sup>3</sup> Drum (Fiber)
- 1 m<sup>3</sup> Supersack
- 42 ft<sup>3</sup> Supersack

# **TYPICAL PHYSICAL & CHEMICAL CHARACTERISTICS:**

Polymer Structure	Gel polyacrylic crosslinked with divinylbenzene		
Appearance	Spherical Beads		
Functional Group	Tertiary Amine		
Ionic Form	FB form		
Total Capacity (min.)	1.6 eq/L (35.0 Kgr/ft³) (FB form)		
Moisture Retention	56 - 62 % (FB form)		
Particle Size Range	300 - 1200 μm		
< 300 µm (max.)	1 %		
Uniformity Coefficient (max.)	1.7		
Irreversible Swelling (max.)	5 %		
Reversible Swelling, $FB \rightarrow CI^{-}$ (max.)	25 %		
Specific Gravity	1.08		
Shipping Weight (approx.)	675 - 705 g/L (42.2 - 44.1 lb/ft³)		
Temperature Limit	40 °C (104.0 °F) (FB form)		



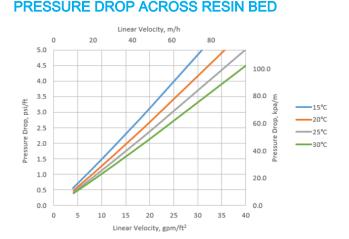
# **Hydraulic Characteristics**

# PRESSURE DROP

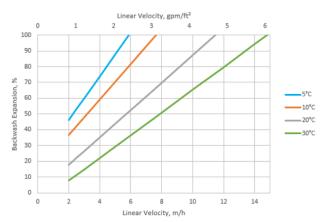
The pressure drop across a bed of ion exchange resin depends on the particle size distribution, bed depth, and voids volume of the exchange material, as well as on the flow rate and viscosity of the influent solution. Factors affecting any of these parameters such as the presence of particulate matter 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.

# BACKWASH

During up-flow backwash, the resin bed should be expanded in volume between 50 and 70% for at least 10 to 15 minutes. This operation will free particulate matter, clear the bed of bubbles and voids, and reclassify the resin particles ensuring minimum resistance to flow. When first putting into service, approximately 30 minutes of expansion is usually sufficient to properly classify the bed. It is important to note that bed expansion increases with flow rate and decreases with influent fluid temperature. Caution must be taken to avoid loss of resin through the top of the vessel by over expansion of the bed.



## **BACKWASH EXPANSION OF RESIN BED**





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Algeria	India	Mexico	Spain
Australia	Indonesia	Morocco	Taiwan
Bahrain	Israel	New Zealand	Tunisia
Brazil	Italy	Poland	Turkey
Canada	Japan	Romania	UK
China	Jordan	Russia	Ukraine
Czech Republic	Kazakhstan	Singapore	USA
France	Korea	Slovak Republic	Uzbekistan
Germany	Malaysia	South Africa	



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