## PRODUCT DATA SHEET

# Purofine<sup>®</sup> PFA300

Polystyrenic Gel, Type II Strong Base Anion Resin, Chloride form, Uniform Particle Size

### PRINCIPAL APPLICATIONS

Demineralization - Industrial Water

## **ADVANTAGES**

- High operating capacity
- High regeneration efficiency
- Uniform particle size

### **REGULATORY APPROVALS**

• Certified by the WQA to NSF/ANSI-61 Standard

### **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 polystyrene crosslinked with divinylbenzene		
Appearance	Spherical Beads		
Functional Group	Type II Quaternary Ammonium		
Ionic Form	CI <sup>-</sup> form		
Total Capacity (min.)	1.4 eq/L (30.6 Kgr/ft³) (Cl⁻ form)		
Moisture Retention	40 - 45 % (Cl⁻ form)		
Mean Diameter	570 ± 50 μm		
Uniformity Coefficient	1.1 - 1.2		
Reversible Swelling, $CI^- \rightarrow OH^-$ (max.)	20 %		
Specific Gravity	1.09		
Shipping Weight (approx.)	675 - 700 g/L (42.2 - 43.8 lb/ft³)		
Temperature Limit	85 °C (185.0 °F) (Cl <sup>-</sup> form)		
Temperature Limit	35 °C (95.0 °F) (OH⁻ form)		



# **Hydraulic Characteristics**

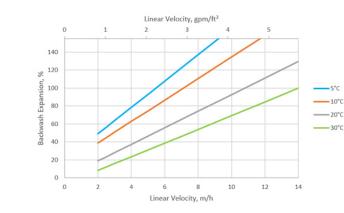
# PRESSURE DROP

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.

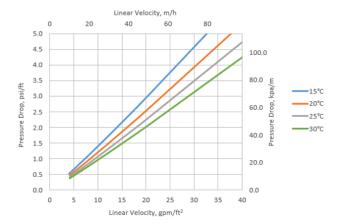
# BACKWASH

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**



## PRESSURE DROP ACROSS RESIN BED







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	



#### Americas

Purolite Corporation 2201 Renaissance Blvd. King of Prussia, PA 19406 T +1 800 343 1500 T +1 610 668 9090 F +1 800 260 1065 americas@purolite.com

#### EMEA

Purolite Ltd. Unit D Llantrisant Business Park Llantrisant, Wales, UK CF72 8LF T +44 1443 229334 F +44 1443 227073 emea@purolite.com

#### **FSU** Purolite Ltd. Office 6-1 36 Lyusinovskaya Str. Moscow, Russia 115093 T +7 495 363 5056 F +7 495 564 8121 fsu@purolite.com

#### Asia Pacific

Purolite China Co. Ltd. Room 707, C Section Huanglong Century Plaza No.3 Hangda Road Hangzhou, Zhejiang, China 310007 T +86 571 876 31382 F +86 571 876 31385 asiapacific@purolite.com

The statements, technical information and recommendations contained herein are believed to be accurate as of the date hereof. Since the conditions and methods of use of the product and of the information referred to herein are beyond our control, Purolite expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information; NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE GOODS DESCRIBED OR THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be applicable when such product is used in combination with other materials or in any process. Nothing contained herein constitutes a license to practice under any patent and it should not be construed as an inducement to infringe any patent and the user is advised to take appropriate steps to be sure that any proposed use of the product will not result in patent infringement.



2021 Purolite Corporation All rights reserved.

www.purolite.com