# PRODUCT DATA SHEET

# PRINCIPAL APPLICATIONS

• Demineralization - Industrial Water

#### **TYPICAL PACKAGING**

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

# Purolite® C150H

Polystyrenic Macroporous, Strong Acid Cation Resin, Hydrogen form

# **TYPICAL PHYSICAL & CHEMICAL CHARACTERISTICS:**

Polymer Structure	Macroporous polystyrene crosslinked with divinylbenzene
Appearance	Spherical Beads
Functional Group	Sulfonic Acid
Ionic Form	H <sup>+</sup> form
Total Capacity (min.)	1.8 eq/L (39.3 Kgr/ft³) (Na <sup>+</sup> form)
Moisture Retention	54 - 59 % (H <sup>+</sup> form)
Particle Size Range	300 - 1200 μm
< 300 µm (max.)	1 %
Uniformity Coefficient (max.)	1.7
Reversible Swelling, Na <sup>+</sup> → H <sup>+</sup> (max.)	7 %
Specific Gravity	1.18
Shipping Weight (approx.)	740 - 775 g/L (46.2 - 48.4 lb/ft³)
Temperature Limit	120 °C (248.0 °F) (H <sup>+</sup> form)
Temperature Limit	140 °C (284.0 °F) (Na <sup>+</sup> form)



# **Hydraulic Characteristics**

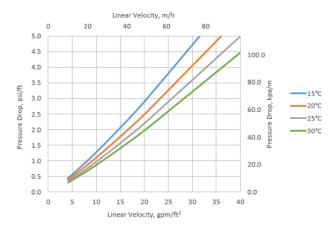
# PRESSURE DROP

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.

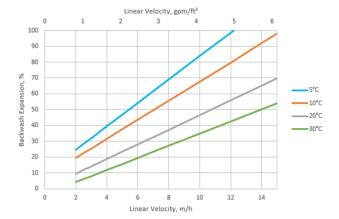
# **BACKWASH**

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.

#### PRESSURE DROP ACROSS RESIN BED



### **BACKWASH EXPANSION OF RESIN BED**







Algeria
Australia
Bahrain
Brazil
Canada
China
Czech Republic
France

Germany

India Indonesia Israel Italy Japan Jordan Kazakhstan Korea Malaysia Mexico Morocco New Zealand Poland Romania Russia Singapore Slovak Republic South Africa Spain Taiwan Tunisia Turkey UK Ukraine USA Uzbekistan



#### 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

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