



## **Ion Exchange Resin Cartridges**

# Polysciences is proud to offer Purolite® Ion Exchange Resin Cartridges

Purolite® has been at the forefront in ion exchange resin technology and manufactures several hundred varieties of resins. As a result, they have been able to carefully select the best performing product or combination of products to optimize cartridge performance. The end result is that Purolite® provides a family of products that are engineered to meet the strictest quality requirements of today's most demanding applications.

Purolite® ion exchange resin cartridges offer some significant performance advantages when compared to other types that are seen in the marketplace.

### **Cartridge Overview**

For many years, the Purolite® name has stood for high quality ion exchange resin products. Purolite® continues that tradition with its resin cartridge product line that uses the same kind of exacting standards used in the production of our resins. Purolite® Ion exchange resin cartridges produce the highest water quality, lowest TOC, longest life, and fastest rinse-down to 18.3 megaohms available in the market.

Purolite® Ion Exchange Resin Cartridges are made from virgin polypropylene and using the latest heat welding techniques without using any chemical bonding agents. Assembly is performed under clean manufacturing conditions using proven statistical Process Control to ensure product quality. Model and lot numbers are heat stamped into each cartridge to provide traceability without the concern of possible contamination from ink or labels. Purolite®'s expertise in ion exchange resin technology, coupled with the high quality of cartridge components and precision manufacturing techniques, allow us to provide you with the highest quality, best performing ion exchange resin cartridges. Cartridges are available in many configurations such as Barnstead, Millipore, and US Filter to fit most popular ultra-pure water systems.

### **Cartridge Types**

#### **Pretreatment Cartridges**

Feature activated carbon in combination with a macroporous anion resin. These cartridges remove colloids and organics. They are typically used to protect and increase cartridge life in ultra-pure water systems.



#### **Ultra-Pure Mixed Bed Cartridges**

Contain a combination of anion and cation resins that are designed with minimal sensing. These cartridges are designed to produce 18.3 megaohm water with minimal rinsing in most situations.

#### **High Capacity Cartridges**

Contain both cation and anion resins in a two bed configuration. These cartridges will produce a larger amount of pure water than mixed bed cartridges, but at a lower resistivity level.

#### **Cation Cartridges**

High capacity cartridges, generally used for water demineralization. Can be combined with anion cartridges to act as a 2-Bed system.

#### **Organic Free Cartridges**

Typically used as the last cartridge in an ultra-pure water system. They can produce water with less than 10 ppb of TOC. These cartridges contain semiconductor grade resin and our high performing Macronet™ organic adsorbent resin.

#### **Oxygen Removal Cartridges**

These cartridges are very effective in preventing corrosion in applications such as cooling water. They are purged with nitrogen and vacuum packed when manufactured to ensure they are supplied at maximum capacity.







## **Ion Exchange Resin Cartridges**

### **Key Performance Features**

#### **Cartridges are Made with Virgin Polypropylene**

All plastic pieces are constructed with new polymers to ensure there are no impurities or leachable contaminants. By using the best quality components to manufacture our cartridges, Purolite® is assured that the final product is unsurpassed in performance and longevity.

#### **Heat Welded Construction**

This eliminates the need for chemical based adhesives that can possibly contaminate ultra pure water supplies. This welding technique also provides outstanding strength for improved durability.

#### **Pressure Tested to Ensure Total Reliability**

All cartridges are rated to operate at a maximum operating pressure of 60 psi, but are routinely tested at significantly higher pressures to ensure that our cartridges will exceed these performance requirements and provide an added margin of safety.

# Manufactured with New Production Ion Exchange Resins

As a leading supplier of ion exchange resins, Purolite® uses this capability to manufacture cartridges with fresh resin that provides long lasting performance. Regenerated or recycled resin that can reduce cartridge life or reduce the high performance standards for demanding applications is never used.

# Packaged Using an Aluminum/Plastic Double Sealed Process

Aluminum and bonded plastic bags are vacuum sealed to provide the ultimate vapor and oxygen barrier. This ensures a long shelf life and reduces the effects of oxidation over time. It is a significant improvement over the common plastic wrapping used on many other cartridges in the market.

