

## **Product Data Sheet**

## **PUROLITE® MB400IND**

**Mixed Bed** 

### Mixed Bed Exchange Resin - Self Indicating

Purolite MB400IND is a high quality resin mixture for direct purification of water. This resin mixture changes color from bluegreen to amber on exhaustion. It is designed for use in both regenerable and non-regenerable cartridges. It contains an indicator which shows when the resin is exhausted and can no longer treat the water. The chromatographic profile is sharp when using standard flow rates of 5-40 BV/h, hence a sharp color change is observed and moves progressively down the bed as the resin is exhausted. Passage of water at recommended flow rates through the resin, as supplied, can achieve almost complete reduction of total dissolved solids. The residuals produce average conductivity values of about 0.1 µS/cm for a major portion of the service run. However it will be necessary to cease water production shortly prior to complete color change if highest quality water is essential. Generally water with a conductivity between 5-30 µS/cm is obtained when the green-blue color finally disappears. This Purolite Mixed Bed Resin is supplied in black, air-tight packaging which contains both cationic and anionic component resins in the highly regenerated forms which ensures direct production of treated, demineralized water of the highest quality. Exposure of the mixture to the atmosphere for lengthy periods can result in some loss in hydroxide sites of the anion component by conversion to carbonate from carbon dioxide in the atmosphere. This can give rise to loss of treated water quality. Exposure of the resin to daylight can also result in loss of indicator color. Accordingly the resin should be loaded into the cartridges as soon as possible after opening the bags, and any unused resin repacked in airtight packaging which is impervious to daylight.

#### **Basic Features:**

Application Demineralization - High Purity Silica Free

Polymer Structure Gel polystyrene crosslinked with divinylbenzene

Appearance Spherical beads

Functional Group Sulphonic Acid and Type 1 Quaternary Ammonium

Ionic form as shipped H<sup>+</sup>/OH

### **Typical Physical and Chemical Characteristics:**

Cation Component		Gel Strong Acid Cation
Anion Component		Gel Strong Base Anion
Cation / Anion Ratio		40 / 60 %
Total Capacity (min.)	Na <sup>+</sup>	1.90 eq/l
Total Capacity (min.)	Na <sup>+</sup>	41.50 kGr/ft <sup>3</sup>
Total Capacity (min.)	Cl	1.30 eq/l
Total Capacity (min.)	Cl	28.40 kGr/ft <sup>3</sup>
Moisture Content		65 %
Mean Size Typical		0.60-0.85 mm
Uniformity Coefficient (max.)		1.70

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Shipping Weight (approx.)		705-740 g/l
Shipping Weight (approx.)		44.1-46.3 lbs/ft <sup>3</sup>
Temp Limit	Non <sup>-</sup> Regenerable Bed	100 °C
Temp Limit	Non <sup>-</sup> Regenerable Bed	212 °F
Temp Limit	Regenerable Bed	60 °C
Temp Limit	Regenerable Bed	140 °F
pH Limits		0-14

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