

ECOLITE DEMIN

MIXED BED RESIN

Ecolite Demin is an equilibrated, homogeneous, gel-type, high-capacity mixed bed ion exchange resin, consisting of a strong base anion and a strong acid cation resin, designed for direct water purification.

APPLICATIONS

- Hot water boilers with aluminum alloy heat exchanger
- Laboratory equipment
- Autoclaves
- Portable systems for window and solar panel cleaning
- Production of demineralized water <math><0.1 \mu\text{S}/\text{cm}</math>



TYPICAL PHYSICAL & CHEMICAL CHARACTERISTICS

Physical Properties	
Type	Strong acid cation, Strong base anion Type I
Polymer Matrix Structure	Polystyrene crosslinked with DVB
Matrix	Gel
Functional Group:	
Cation	$\text{RSO}_3^- \text{H}^+$
Anion	$\text{R}_4\text{N}^+ \text{OH}^-$
Physical Form and Appearance	Clear spherical beads
Chemical Properties	
Ionic Form, as shipped	H^+ / OH^-
Total Exchange Capacity:	
Cation (in Na form)	2.0 eq/l min.
Cation (in H form)	1.9 eq/l min.
Anion (in Cl form)	1.3 eq/l min.
Anion (in OH form)	1.0 eq/l min.
Volume Ratio (as shipped):	
Cation	40%
Anion	60%
Particle Size	
U.S. Standard Screen	16–50 mesh, wet
Particle Size Range	+1.2 mm < 5% -0.3 mm < 1%
Uniform Coefficient	1.6 max.
Stability	
Water Retention:	
H form	50–55%
OH form	60–65%
Sphericity	95% min.
Shipping Weight (approx.)	700–740 g/l (44–46 lbs/cu.ft.)
pH Range	0–14

SUGGESTED OPERATING CONDITION

Temperature Limit:

Non-regenerative bed	100 °C (212 °F) max.
Regenerative bed	60 °C (140 °F) max.
Maximum operating Temperature	120 °C (248 °F) max.
Minimum Bed Depth	0.7 m (2.3 ft)
Service Flow Rate	20–60 BV/h* (2.5–5.0 gpm/cu.ft)

* 1 BV (Bed Volume) = 1 m³ solution per m³ resin

SUGGESTED OPERATING CAPACITY

The operating capacity of the mixed bed can be estimated using the following formula, which gives an approximate determination of volume of water that can be treated:

$$\text{Filter Cycle} = V_{MB} \times \frac{20}{\text{Conductivity}},$$

Filter Cycle (m³) – volume of feed water;

Conductivity (µs/cm) – feed water conductivity;

V_{MB} (liter) – volume of the mixed bed Ecolite Demin.

This data is tested under below condition:

- feed water containing a conductivity as 100 µs/cm;
- treated water conductivity 0.1 µs/cm;
- service flow rate as 60 BV/h.

STORAGE

Store in the original, unopened packaging in a cool, dry area. An indoor storage facility with climate control between 0–40 °C should be used for the best results. If subjected to freezing temperatures, the media should be defrosted at room temperature. Do not apply heat. Protect against contamination. Do not ship or store together with toxic, chemical agents, or odorous substances.

GUARANTEED SHELF LIFE

Shelf life in the original manufacturer's packaging: Industrial Water Treatment – 2 years
Potable Water & Food – Not Applicable.

CODE AND STANDARD PACKAGING

ECOLITED25 – bag 25 L