

# Felite™ Resin

## FMB401-BSC



SAC / SBA, Gel  
 Ratio: 2 : 3  
 Standard Mesh Size  
 H+ / OH- form

Felite™ FMB401-BSC is the mixture of Felite™ FC108-BH (hydrogen form strong acid cation resin, black color) and Felite™ FA127-OH (hydroxide form type I strong base anion resin) with the ratio 2:3.

Felite™ FMB401-BSC is designed to produce very high water quality and is intended to use in all mixed bed deionization applications that require high resistivity and high capacity.

Felite™ FMB401-BSC, as a polish, is made with additional processing steps to reduce TOC levels and achieve resistivity of 18+ megohms upon initial application. It is available in a ready-to-use form.

### Applications:

- PEDI (Portable Exchange Deionization);
- Cartridge Applications;
- In Place Regeneration;

### TYPICAL PHYSICAL & CHEMICAL CHARACTERISTICS:

<b>Polymer Structure</b>	Styrene/DVB, Gel	
<b>Appearance</b>	Spherical Beads	
<b>Functional Group</b>	Sulfonic Acid	Quaternary Amine, Type I
<b>Ionic form, as shipped</b>	99% H+	95% OH-
<b>Total Capacity (mmol/ml)</b>	2.0 min. (Na+)	1.4 min. (Cl-)
<b>Ratio</b>	2 : 3	
<b>Moisture Retention</b>	50 -60%	
<b>Particle Size Range (mm)</b>	0.3 - 1.2 (≤0.3mm, 1% max.; > 1.2mm, 5% max.)	
<b>Uniformity Coefficient (max.)</b>	1.7	
<b>Shipping Weight (g/L, approx.)</b>	700 - 740 (43 lb/ft <sup>3</sup> )	
<b>Temperature Limit</b> (Regenerable Bed)	60°C (140°F)	
<b>Temperature Limit</b> (Non-Regenerable Bed)	100°C (212°F)	
<b>Stability, pH Range</b>	0 - 14	

### PACKAGING:



25 Litres / 1 cu.ft PE Bag;  
 48 / 42 Bags Per Pallet;  
 20 Pallets Per 20ft Container



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## PERFORMANCE

### Operating capacity

The following formula gives an approximate determination of volume that can be treated:

$$BV = \frac{500}{TDS}$$

BV (Bed Volume) is the number of litres of a water containing a TDS (Total Dissolved Solids) given in meq/L that can be demineralised with one litre of the resin mixture when run to exhaustion.

### Regeneration

If required, Felite™ FMB401 resin can be regenerated after exhaustion. Both components must be separated by backwashing and regenerated separately.

### LIMITS OF USE

Felite™ FMB401 resin is suitable for industrial uses. For all other specific applications such as pharmaceutical, food processing or potable water applications, it is recommended that all potential users seek advice from Felite™ Resin Technology in order to determine the best resin choice and optimum operating conditions.

### TREATED WATER CONDUCTIVITY

In polishing applications, say with a feed of less than 10 µS/cm, the resins Felite™ FMB401 resin should produce a water with less than 0.1 µS/cm. In cases where the feed water has high conductivity (up to say 500 µS/cm) the water should still have less than 1 µS/cm.

## SUGGESTED OPERATING CONDITIONS:

### Minimum Bed Depth

700mm

### Service Flow Rate

20 - 40 BV\*/h

### Regeneration

#### - Regenerants

Cation component: HCl / H<sub>2</sub>SO<sub>4</sub>

Anion component: NaOH

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, Felite™ expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

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