

# Felite™ Resin

## FC110-HB



Strong Acid Cation, Gel  
Standard Mesh Size  
H<sup>+</sup> form

Industrial Grade

Felite™ FC110-HB is a dark-colored 10% crosslinked gel strong acid cation resin with standard mesh size range, supplied in hydrogen form and it is primarily used in the demineralization plants use in industrial water treatment employing co-flow regeneration. It is recommended for mixed bed due to its special dark color.

Its standard beads size distribution gives optimum operating capacity with minimum leakages of ions and also minimum pressure drop across the resin bed.

Felite™ FC110-HB can be regenerated with mineral acids (hydrochloric or sulphuric acids).

### Principal Application:

- Demineralization - Industrial;
- Cation Component in Mixed Bed;

### TYPICAL PHYSICAL & CHEMICAL CHARACTERISTICS:

<b>Polymer Structure</b>	Styrene/DVB, Gel
<b>Appearance</b>	Spherical Beads
<b>Functional Group</b>	Sulfonic Acid
<b>Ionic form, as shipped</b>	H <sup>+</sup>
<b>Total Capacity (mmol/ml)</b>	2.2 min. (Na <sup>+</sup> )
<b>Moisture Retention</b>	47 - 50%
<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>Reversible Swelling, Na<sup>+</sup> → H<sup>+</sup> (max.)</b>	8%
<b>Shipping Weight (g/L, approx.)</b>	810 - 850 (52 lb/ft <sup>3</sup> )
<b>Specific Gravity</b>	1.30
<b>Temperature Limit</b>	130°C (265°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



1 m<sup>3</sup> Supersack Per Pallet;  
20 Pallets Per 20ft Container



#### Asia Pacific

Yancheng, Jiangsu, China  
sales@felitecn.com

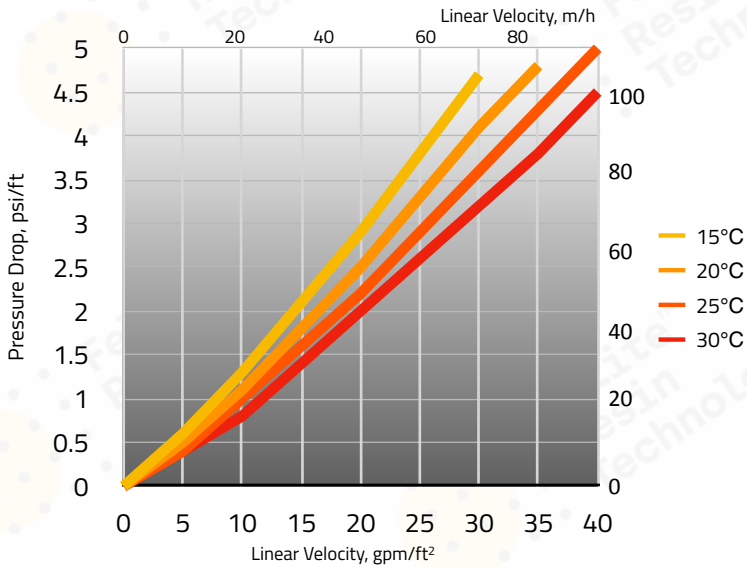
#### America

San Gabriel, CA, USA  
sales@felitecn.com

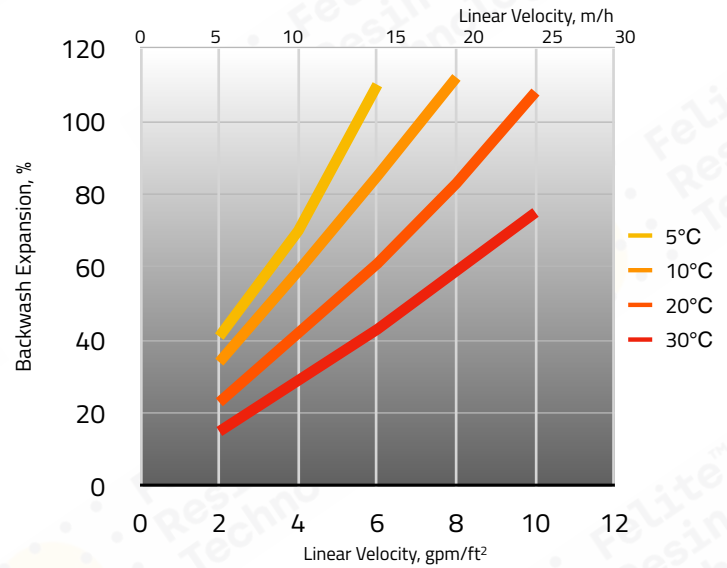
#### Europe

Cluj Napoca, Romania  
sales@felitecn.com

## PRESSURE DROP



## BACKWASH EXPANSION



## PERFORMANCE

The operating capacity depends on several factors such as the water analysis and the level of regeneration. The data to calculate the operating capacity and the ionic leakage with co-flow regeneration are given in the Engineering Data Sheets.

## LIMITS OF USE

Felite™ FC110 resin is suitable for industrial uses. For 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.

## HYDRAULIC CHARACTERISTICS

Figure 1 shows the pressure drop data for Felite™ FC110 resin, as a function of service flow rate and water temperature. Figure 2 shows the bed expansion of Felite™ FC110 resin, as a function of backwash flow rate and water temperature. Pressure drop data are valid at the start of the service run with clear water and a correctly classified bed.

## SUGGESTED OPERATING CONDITIONS:

<b>Minimum Bed Depth</b>	700mm		
<b>Service Flow Rate</b>	5 - 40 BV*/h		
<b>Regeneration</b>			
- Regenerant	HCl	H <sub>2</sub> SO <sub>4</sub>	NaCl
- Level (g/L)	50 - 150	60 - 240	80 - 250
- Concentration (%)	5 - 8	0.7 - 6	10
- Flow Rate (BV/h)	2 - 5	2 - 20	2 - 8
- Minimum Contact Time	30 minutes		
- Slow Rinse	2 BV* at regeneration flow rate		
- Fast Rinse	2 - 4 BV* at service flow rate		

\* 1 BV (Bed Volume) = 1 m<sup>3</sup> solution per m<sup>3</sup> resin

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.

### Asia Pacific

Yancheng, Jiangsu, China  
sales@felitecn.com

### America

San Gabriel, CA, USA  
sales@felitecn.com

### Europe

Cluj Napoca, Romania  
sales@felitecn.com

