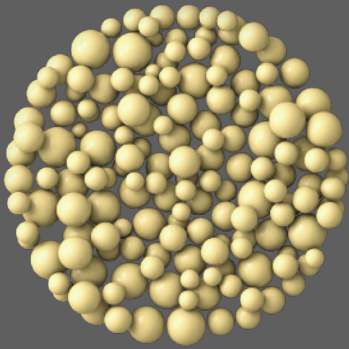


# Felite™ Resin FC311-PSM



Weak Acid Cation, Porous  
Standard Mesh Size  
H<sup>+</sup> / Na<sup>+</sup> form  
  
Potable Water Grade

Felite™ FC311-PSM is a potable water grade, macroporous polyacrylic weak acid cation exchange resin with standard mesh size. It is specially processed for the drinking water system, consists of Hydrogen form and Sodium form Felite™ FC311 at a special ratio, especially for those filters used in cafes, restaurants, and breweries. Its capability to selectively recover metal ions helps to retain useful ions such as Magnesium which helps extract fruit acids, and Bicarbonates provide a balance of taste and aroma to maintain the coffee's flavor. Our innovative ionic form combo gives the output water a neutral pH and super low TDS volume.

## Principal Application:

- Softening – Potable Water;
- Metal Removal;

## TYPICAL PHYSICAL & CHEMICAL CHARACTERISTICS:

<b>Polymer Structure</b>	Polyacrylic Acid, Macroporous
<b>Appearance</b>	Spherical Beads
<b>Functional Group</b>	Carboxylic Acid
<b>Ionic form, as shipped</b>	H <sup>+</sup> / Na <sup>+</sup>
<b>Total Capacity (mmol/ml)</b>	4.7 min. (H <sup>+</sup> )
<b>Moisture Retention</b>	45 -55%
<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, H<sup>+</sup> → Ca<sup>2+</sup> (max.)</b>	20%
<b>Reversible Swelling, H<sup>+</sup> → Ca<sup>2+</sup> (operating)</b>	8%
<b>Reversible Swelling, H<sup>+</sup> → Na<sup>+</sup> (max.)</b>	60%
<b>Shipping Weight (g/L, approx.)</b>	740 - 780 (48 lb/ft <sup>3</sup> )
<b>Specific Gravity</b>	1.19
<b>Temperature Limit</b>	120°C (248°F)
<b>Stability, pH Range</b>	0 - 14

## PACKAGING:



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



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



### Asia Pacific

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### America

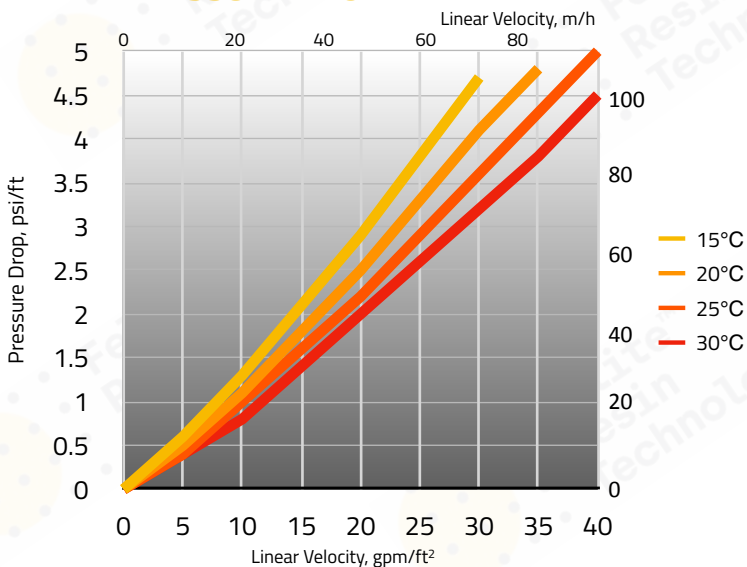
San Gabriel, CA, USA  
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### Europe

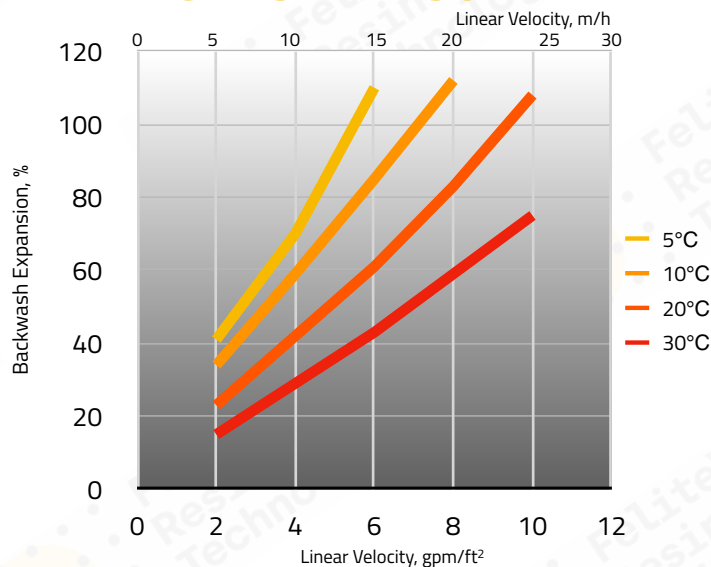
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## PRESSURE DROP



## 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.

### Regeneration

Felite™ FC311 resin is readily regenerated with little over stoichiometric amounts of strong acids. If sulfuric acid is used, care must be taken to apply a low concentration of H<sub>2</sub>SO<sub>4</sub> (**0.7%**) in order to avoid calcium sulfate precipitation.

### LIMITS OF USE

Felite™ FC311 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™ FC311 resin, as a function of service flow rate and water temperature. Figure 2 shows the bed expansion of Felite™ FC311 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:

### Minimum Bed Depth

700mm

### Service Flow Rate

5 - 70 BV\*/h

### Regeneration

#### - Regenerant

HCl

H<sub>2</sub>SO<sub>4</sub>

#### - Level (g/L)

104 - 110% of the operating capacity

#### - Concentration (%)

2 - 5

0.5 - 0.7

#### - 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.

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