# Felite<sup>™</sup> Resin FC100



Strong Acid Cation, Macroporous Standard Mesh Size Na+ form

Industrial Grade

Felite<sup>™</sup> FC100 is a premium grade, highly crosslinked, macroporous strong acid cation exchange resin based on sulfonated polystyrene, cross-linked with DVB, supplied in Sodium form. It has an excellent resistance to both osmotic and thermal shock, and is intended for high flow rate and high-temperature polishing applications, as well as other applications that require the highest possible physical strength and chemical durability.

#### **Principal Application:**

- Softening Industrial;
- Softening High Temperature & High TDS Water;
- Demineralization Industrial;

## **TYPICAL PHYSICAL & CHEMICAL CHARACTERISTICS:**

Polymer Structure	Styrene/DVB, Macroporous
Appearance	Spherical Beads
Functional Group	Sulfonic Acid
lonic form, as shipped	Na+
Total Capacity (mmol/ml)	1.8 min. (Na+)
Moisture Retention	48 - 53%
Particle Size Range (mm)	0.3 - 1.2 (≤0.3mm, 1% max.; > 1.2mm, 5% max.)
Uniformity Coefficient (max.)	1.7
Reversible Swelling, Na⁺ → H⁺ (max.)	7%
Shipping Weight (g/L, approx.)	785 - 825 (50 lb/ft³)
Specific Gravity	1.25
Temperature Limit	150°C (300°F)
Stability, pH Range	0 - 14

## **PACKAGING:**



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

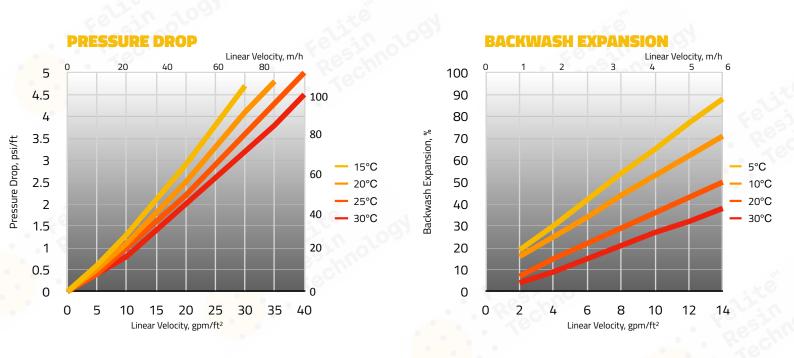


1 m<sup>3</sup> Supersack Per Pallet; 20 Pallets Per 20ft Container



Felite" Resin Technology

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#### 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<sup>™</sup> FC100 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<sup>™</sup> 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<sup>™</sup> FC100 resin, as a function of service flow rate and water temperature. Figure 2 shows the bed expansion of Felite<sup>™</sup> FC100 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.

Minimum Bed Depth		700mm		
Service Flow Rate	5	5 - 170 BV*/h   5 - 120 m/h		
Regeneration				
- Regenerant	нсі	$H_2SO_4$	NaCl	
- Level (g/L)	50 - 150	50 - 200	80 - 400	
- Concentration (%)	4 - 10	1-5	10	
- Minimum Contact Time		30 minutes		
- Slow Rinse	2 E	2 BV* at regeneration flow rate		
- Fast Rinse	2	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<sup>™</sup> 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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