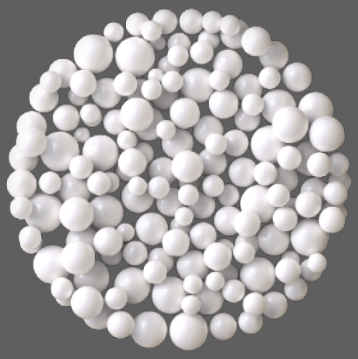
Felite™ Resin FA301



Weak Base Anion, Macroporous
Standard Mesh Size
Free Base form

Industrial Grade

Felite™ FA301 resin is an extremely durable high capacity, shock resistant, tertiary amine macroporous weak base anion exchange resin with very good rinse characteristics that can be efficiently regenerated with a variety of alkaline chemicals, or with waste caustic left over from regeneration of strong base anion resin. The high degree of porosity of this resin provides efficient adsorption of large organic molecules and their desorption during regeneration, thus allowing excellent protection against organic fouling.

Felite™ FA301 resin is intended primarily for the removal of strong acids from water following a strongly acidic cation exchange resin, and it provides excellent protection against organic fouling for the strong base anion exchange resin placed downstream in a deionization plant. It can also be used in resource recovery systems and for selective ion removal (when used in the acid salt form).

Principal Applications:

- Demineralization;
- Mineral Acids Removal;
- Organics Removal;

TYPICAL PHYSICAL & CHEMICAL CHARACTERISTICS:

Polymer Structure	Styrene/DVB, Macroporous
Appearance	Spherical Beads
Functional Group	Tertiary Amine
Ionic form, as shipped	Free Base
Total Capacity (mmol/ml)	1.45 min. (FB)
Moisture Retention	51 - 58%
Particle Size Range (mm)	0.3 - 1.2 (≤0.3mm, 1% max.; > 1.2mm, 5% max.)
Uniformity Coefficient (max.)	1.7
Reversible Swelling, FB → Cl^- (max.)	25%
Shipping Weight (g/L, approx.)	645 - 675 (40 lb/ft³)
Specific Gravity	1.04
Temperature Limit	60°C (140°F)
Stability, pH Range	0 - 14

PACKAGING:

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

1 m³ Supersack Per Pallet;
20 Pallets Per 20ft Container

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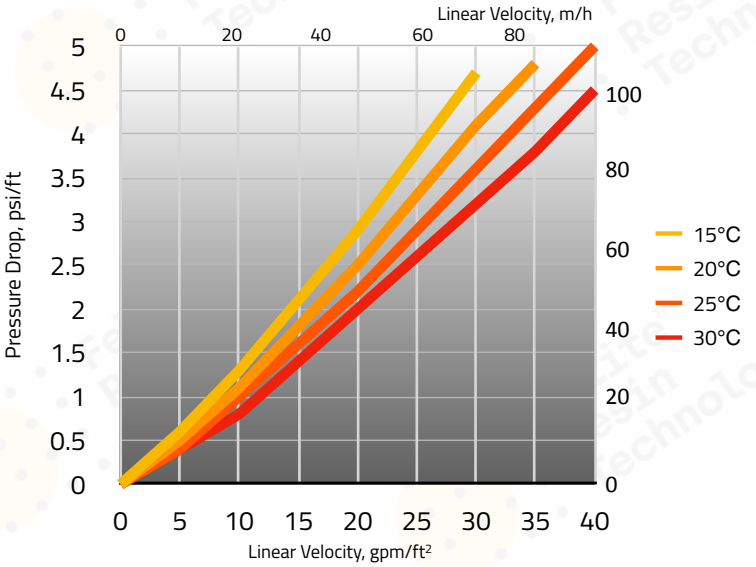
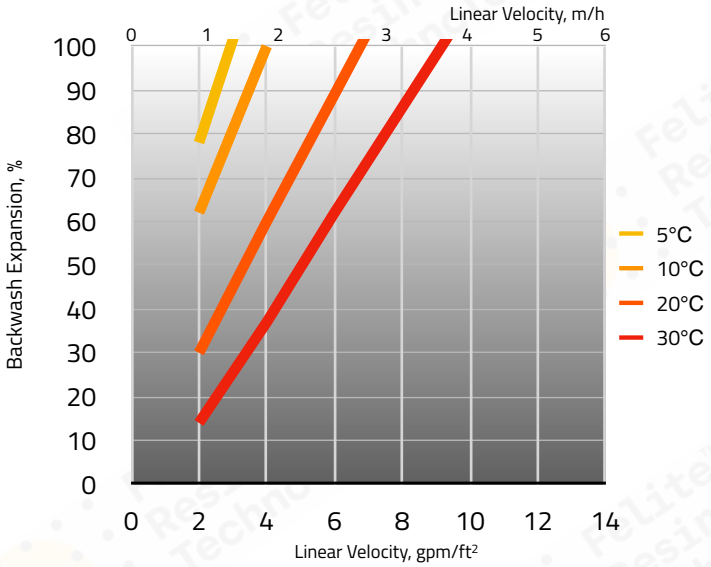
Felite™ Resin Technology

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™ FA301 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™ FA301 resin, as a function of service flow rate and water temperature. Figure 2 shows the bed expansion of Felite™ FA301 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 - 40 BV*/h		
Regeneration			
- Regenerant	NaOH	NH_3	Na_2CO_3
- Level (g/L)	120	150	200
- Concentration (%)	2 - 4	2 - 6	5 - 8
- Minimum Contact Time	30 minutes		
- Slow Rinse	2 BV* at regeneration flow rate		
- Fast Rinse	4 - 8 BV* at service flow rate		

** 1 BV (Bed Volume) = 1 m^3 solution per m^3 resin*

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