

## STRONG ACID CATION EXCHANGE RESIN (FDA)

Model: INK-100F

### Applications

- Water Softener System
- Water Dispensers
- Coffee Machines
- Electric Irons
- High-Grade Aquaculture
- Flower Planting
- Shower Equipment
- Household Water Heaters

### Description

Model: INK-100F is a sort of cation exchange resin that has sulfonic group ( $-\text{SO}_3\text{H}$ ) in the styrene-diethylene benzene copolymer with 7% cross-linked degree. It is used mainly to soft hard water and produce pure water, as well as used in the hydro-metallurgy and sugar producing and medicine and no sodium glutamate industry, it can be used as catalyzer and dehydrating agent.

### Features

#### **High Ion Exchange Capacity:**

With a total exchange capacity of  $\geq 4.50$  mmol/g, this resin effectively softens hard water and produces pure water.

#### **Robust Physical and Chemical Stability:**

Exhibits excellent stability, ensuring durability and consistent performance across various applications.

#### **Wide pH Range Compatibility:**

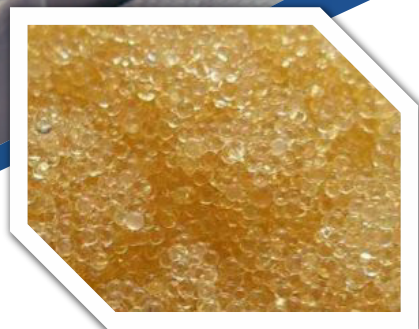
Operates effectively within a pH range of 1 to 14, making it versatile for different water treatment needs.

#### **High Temperature Resistance:**

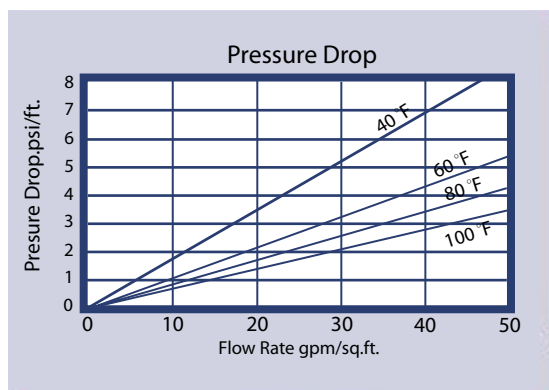
Capable of withstanding operational temperatures up to  $120^\circ\text{C}$  in sodium form, suitable for high-temperature applications.

#### **Low Swelling Property:**

Demonstrates minimal swelling upon complete ion exchange conversion ( $\text{Na}^+$  to  $\text{H}^+$ ), maintaining structural integrity.

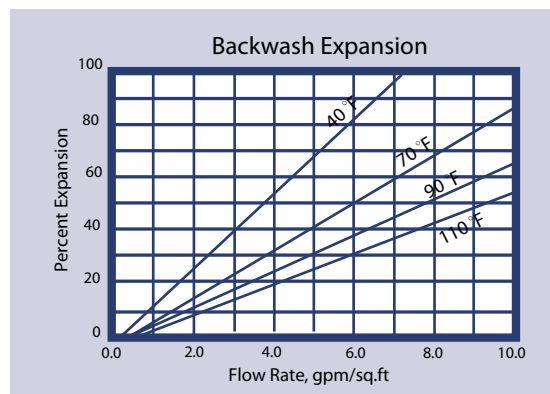


## HYDRAULIC PROPERTIES



### PRESSURE DROP

The graph above shows expected pressure loss per foot of bed depth as a function of flow rate, at various temperatures.



### BACKWASH

After each cycle the resin bed should be backwashed at a rate that expands the bed 25 to 50 percent. This will remove any foreign matter and reclassify the bed. The graph below shows the expansion characteristics of INK-100F in the sodium form.

## Typical Physical and Chemical Properties:

ITEMS	DATA
Appearance	Palm Yellow to burnt brown spherical grain
Ionic Form	Na <sup>+</sup>
Moisture Content (%)	45 ~ 50
Total Exchange Capacity (mmol/g)	≥ 4.5
Total Exchange Capacity (mmol/ml)	≥ 1.9
Shipping Weight (g/ml)	0.77 ~ 0.87
True Density (g/ml)	1.250 ~ 1.290
Particle Size Range (%)	(0.315mm ~ 1.250mm) ≥ 95.0
Lower Limit Size (%)	(<0.315mm) ≤ 1.0
Effective Size (mm)	0.400 ~ 0.700
Uniformity Coefficient	≤ 1.60
Sphericity After Attrition (%)	≥ 90

