

IX C-180 E is a gel type strongly acidic cation exchange resin of and beverage processing the sulphonated polystyrene type. It is used for water softening of food and beverage processing (in Na⁺ form) in co-flow regenerated units. Its principle characteristics are excellent physic, chemical and thermal stability, good ion exchange kinetics and high exchange capacity.

IX C-180 E, which has high purity characteristics complying with the regulations of the FDA in the U.S.A. and with those of German Federal Republic, has also been approved by the relative agencies in France.

PROPERTIES

Matrix	styrene divinylbenzene copolymer
Functional group	sulphonates
Physical form	beads
Ionic form as shipped	Na ⁺
Total exchange capacity	2.0 eq/L(Na ⁺ form)
Moisture holding capacity	45 to 50 %(Na ⁺ form)
Bulk density	0.77-0.87 g/mL
Density	1.25 to 1.29 (Na ⁺ form)
APHA Color	≤ 20

Particle size

Uniformity coefficient	< 1.6
Fine contents	< 0.40 mm: 2.0% max
Maximum reversible swelling	Na ⁺ → H ⁺ : 10%
Chemical resistance	Insoluble in dilute solution of acids or bases and common solvents

SUGGESTED OPERATING CONDITIONS

It is no need to rinse out any matter or contaminant. The resin IX C-180 E is cleaned by boiling in deionized water then washing and rinsing respectively, to get the APHA color ≤ 20. It is just only carried out backwashing 2-4 BV before starting resin on service.

Minimum bed depth	700 mm
Service	5 to 50 BV/h
Regenerant	NaCl
Level (g/L)	80 to 250
Concentration (%)	10
Flow rate (BV/h)	2 to 8
Minimum contact time	30 min
Slow rinse	2 BV at regeneration flow rate
Fast rinse	2 to 4 BV at service flow rate

APPLICATIONS

The high purity grade of **IX C-180 E** makes this exchanger particularly suitable for the treatment of water for drinking and for household use, as well as for the conditioning of solutions for food purposes.

The applications of IX C-180 E include:

- Softening and decationization of water,
- Softening and decationization of industrial solution.
- Strongly recommend usage in ultra purity drinking water.
- Suitable for reverse osmosis system.

Rules for entry into service for use in the food field

The following rules for entry into service must be complied with so that the exchanger ensures the purity characteristics required for use in the food field.

At a service flow rate sufficient to ensure 50% bed expansion. If the exchanger is operated in the sodium cycle, it will be exhausted with drinking water or with 0.5% CaCl₂ solution (prepared with drinking water) and regenerated with NaCl solution under the usual conditions. The exhaustion and regeneration, before entry into service, should be effected using a regeneration level equivalent to at least 250 g NaCl(100%) per litre of exchanger.

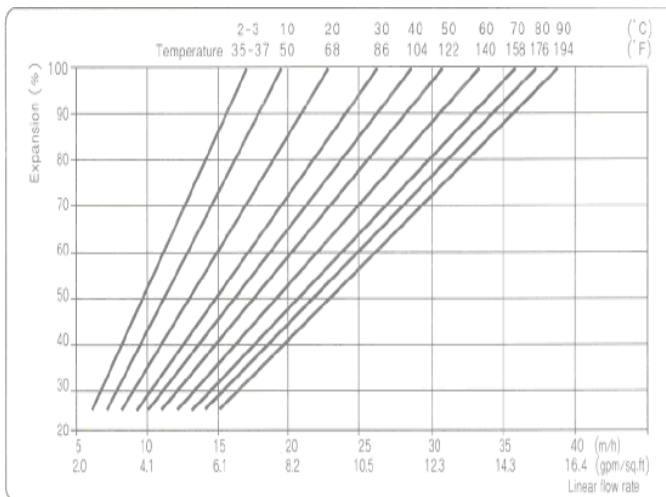


Figure 1: Bed expansion in backwash versus water

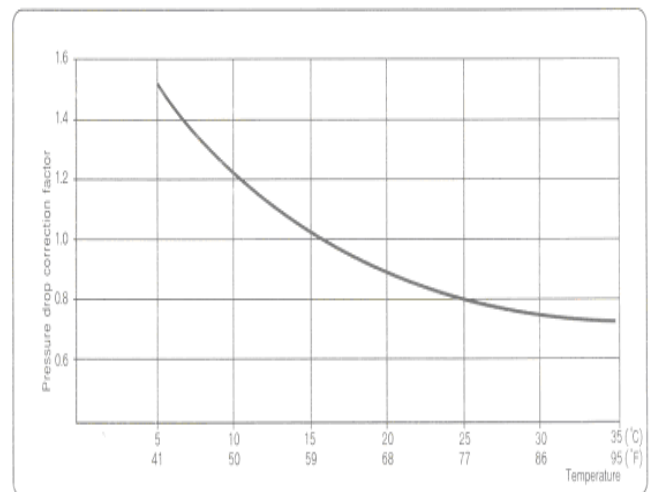


Figure 2: Pressure drop in the bed versus temperature of the water to be treated

LIMITS OF USE

IX C-180 E is suitable for food and beverage uses. For other specific applications such as pharmaceutical, food, drinking water processing or potable water application, it is recommended that all potential users seek advice from Right Solution in order to determine the best resin choice and optimum operating conditions.

PRODUCT WEIGHT:

- 25 L /Bag