

# **Description**

Polymex Resin is a high capacity strongly acidic cation exchanger in bead form. It is based on cross-linked polystyrene and has a gel structure. The resin contains sulphonic acid functional groups. It is supplied moist in the sodium form.

# **Applications**

Polymex Resin is used most widely in sodium form for water softening application. It can be used also in two-stage de-ionising as the cation exchanger in the hydrogen cycle.



### Polymex C-180

### Features:

- · High exchange capacity
- · High mechanical strength
- · Uniform particle with good hydraulics characteristic
- Good Selectivity
- · Good Thermo-tolerant characteristic
- · Excellent physical and chemical stability

# **Specification:**

Polymer structure : Styren-DVB Functional group : HSO<sub>3</sub>-

Appearance : Light brown bead

Ionic form : Na<sup>†</sup> type

Total exchange capacity  $: \ge 4.5 \text{ mmol/g(dry) (Na}^{+} \text{ type)}$ Total exchange capacity  $: \ge 1.9 \text{ mmol/ml (Na}^{+} \text{ type)}$ 

Moisture content : 46-50% (Na<sup>+</sup> type)
Density : 1.29 g/ml (Na<sup>+</sup> type)

Shipping weight : 0.77.087 g/ml (Na<sup>+</sup> type) Particle size :  $0.315-1.25 \text{ mm} \ge 95\%$ 

Uniformity coefficient : ≤1.7 Attrition rate :≥90%

Swell, Max. : Na<sup>+</sup> -H<sup>+</sup>10%

# **Operation Parameters:**

Operating temperature, Max. : 120 °C
Bed depth, Min : 800mm
Service flow rate : 5-25BV<sup>+</sup>/h
Service flow rate : 40 m/h

Regenerant : NaCl HCl H<sub>2</sub>SO<sub>4</sub>

Consumption (as 100%) : 80-220g/l 50-150g/l 80-240g/l

Concentration : 5-10% 5-8% 0.7-6%

Flow rate :  $2-8 \text{ BV}^+/\text{h} \ 2-5 \text{ BV}^+/\text{h} \ 2-20 \text{BV}^+/\text{h}$ 

Contact time, Min : 30 min

Slow rinse : 2 BV<sup>+</sup> (Regeneration flow) Fast rinse : 4-8BV<sup>+</sup> (Service flow)

Note: 1 BV = 1 m<sup>3</sup> media/1m<sup>3</sup> resin



### **Packing**

HDPE Lined bags 25 Its LDPE bags 1 cft/25Its

### **Storage**

lon exchange resins require proper care at all times. The resin must never be allowed to become dry. Regularly open the plastic bags and check the condition of the resin when in storage. If not moist, add enough clean demineralised water and keep it in completely moist condition. Always keep the resin drum in the shade. Recommended storage temperature is between 20 C and 40 C.

## Safety

Acid and alkali solutions used for regeneration are corrosive and should be handled in a manner that will prevent eye and skin contact. If any oxidising agents are used, necessary safety precautions should be observed to avoid accidents and damage to the resin.







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