



ANION EXCHANGE RESIN TOKEM-800

TR 2227-025-72285630-2011

High capacity strong base anion exchange resin (gel type) with improved particle range composition and osmotic stability.

It effectively removes silicic acid and acid anions from water.

GENERAL DESCRIPTION

Matrix	styrene-DVB
Functional group	quaternary ammonium basic groups (type 1)
Polymer structure	gel
Ionic form	Cl ⁻ chloride OH ⁻ hydroxyl

Application area:

This anion exchange resin can be applied in all conventional ion exchange processes, including:

- demineralization water treatment systems at co-current regeneration;
- condensate polishing.

Physical and Chemical Characteristics:

CHARACTERISTICS	STANDARD
Appearance	Spherical beads, white to brown in colour
Particle size range, mm	0.40-1.25
Volume of effective size fraction, % min	96
Effective particle size, mm max	0.6
Uniformity coefficient, max	1.6
Moisture retention, in Cl ⁻ form, %	35-50
Osmotic stability, %, min	95
Bulk volume factor in OH ⁻ form, cm ³ /g	2.7-3.3
Total capacity, mmol/cm ³ (mg-eq/cm ³), min	1.15
Equilibrium static exchange capacity in OH ⁻ form, mmol/cm ³ (mg-eq/cm ³), min	1.0



Table con'd (Physical and Chemical Characteristics)

Dynamic exchange capacity with regenerant flowrate target, mmol/m ³ (g-eq/m ³), min	700
Oxidation in oxygen equivalent, mg/l, max	0.55 (0.5)*
Total uncracked beads as shipped, %, min	90 (95)*
Mean mechanical toughness, g/bead, min	300
Particles with toughness below 200 g/bead, %, max	10
Shipping weight, g/cm ³	0.70-0.74
Particle density, g/cm ³	1.06-1.10

* - Values given in brackets are for products supplied to atomic power plants

Processing Characteristics:

SUGGESTED OPERATING CONDITIONS AND MODES:

Bed depth min, mm	800
Pressure drop coefficient, kPa·h/m ²	1.35
Temperature limit, ° C	
Cl ⁻ form	80
OH ⁻ form	60
pH limit	0-14
Swelling at Cl ⁻ → OH ⁻ , %	20
Regenerant, %	(3-4) NaOH
Total rinse requirement, BV	3-6
Backwashing bed expansion, %	80-100