

ANION EXCHANGE RESIN TOKEM-400

TR 2227-032-72285630-2014

Weak base anion exchange resin (gel type) with high exchange capacity, mechanical and osmotic stability, resistant to organic fouling. The resin is characterized with high capacities. It resists organic contamination better than weak base polystyrene anion exchange resins.

GENERAL DESCRIPTION	
Matrix	Polyacrylic
Functional group	tertiary amine
Polymer structure	porous
Ionic form	free base

Application area:

- water desalination for industrial vapour generation;
- organic matter removal.

Physical and Chemical Characteristics:

CHARACTERISTICS	STANDARD VALUE
Appearance	Spherical beads, opaline to yellow in colour
Particle size range, mm	0.315–1.25
Uniformity coefficient, max	1.6
Effective size fraction proportion, % min	95
Effective particle size, mm	0.4–0.7
Moisture retention, %	54–64
Osmotic stability, %, min	98
Total capacity, mmol/cm ³ (mg–eq/cm ³), min	1.6
Dynamic exchange capacity with regenerant requirement target, mmol/m ³ (g–eq/m ³), min	1200
Total uncracked beads as shipped, %, min*	95
*– the indicator is standardized when the product is supplied to atomic power stations	



Table con' d (Physical and Chemical Characteristics)

Mean mechanical toughness, g/bead, min	300
Particles with toughness below 200 g/bead, % max	10
Shipping weight, g/cm ³	0.66–0.74
Particle density, g/cm ³	1.04–1.09

Processing Characteristics:

SUGGESTED OPERATING CONDITIONS AND MODES:	
Bed depth, min, mm	800
Temperature limit, °C	40
pH limit	0–8
Swelling at Cl ⁻ → free base, %	25
Regenerant, %	(2–4) NaOH
Total rinse requirement, BV	8–14
Backwashing bed expansion, %	80–100