ANION EXCHANGE RESIN TOKEM–920

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Strong base anion exchange resin (gel type). Efficient scavenger for organics. Owing to its acryl structure, the anion exchange resin easily absorbs and desorbs organic molecules. It is resistant to organic compound impact.

High exchange capacity, mechanical and osmotic stability make this resin indispensable for desalination systems, particularly if a minimum slip of silicic acid is required.

GENERAL DESCRIPTION	
Matrix	Acryl–DVB
Functional group	quaternary and tertiary ammonium basic groups (type 1)
Polymer structure	macroporous
Ionic form	Cl^- chloride

Application area:

In Cl- form the resin is applied as a scavenger for organics to protect the downstream anion exchange filter from organic poisoning;

In OH- form it is applied in conventional co-current water treatment systems for efficient removal of silicic ions.

Physical and Chemical Characteristics:

CHARACTERISTICS	STANDARD VALUE
Appearance	Spherical transparent beads, white to light yellow
Partcile size range, mm	0.315–1.250
Volume of effective size fraction, % min	95
Effective particle size, mm	0.4–0.7
Uniformity coefficient, max	1.6
Moisture retention in Cl^- form, %	66–72
Osmotic stability, %, min	90
Total capacity in OH^- form, mmol/cm^3 (mg–eq/cm^3), min	0.7
Shipping weight in Cl^- form, g/cm^3	0.65–0.73
Particle density in Cl^- form, g/cm^3	1.04–1.10

Processing Characteristics:

SUGGESTED OPERATING CONDITIONS AND MODES:	
Bed depth min, mm	800
Temperature limit, ℃ Cl^- form OH^- form	 40 30
p H limit	0–14
Swelling at $Cl^- \rightarrow OH^-$, %	25
Regenerant, %: Cl^- form OH^- form	 10 $NaCl^+$ (1–2) Na O H (3–4) NaOH
Total rinse requirement, BV	6–10
Backwashing bed expansion, %	80–100