

## **ANION EXCHANGE RESIN TOKEM-900**

TR 2227-038-72285630-2014

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	porous	
Ionic form	Cl <sup>-</sup> chloride	

## Application area:

In CI- form it 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	0.5-0.7	
Uniformity coefficient, max	1.6	
Moisture retention in CI <sup>-</sup> form, %	54-64	
Osmotic stability, %, min	96	
Total capacity in OH- form, mmol/cm³ (mg-eq/cm³), min	1.0	
Shipping weight in CI <sup>-</sup> form, g/cm <sup>3</sup>	0.65-0.75	
Particle density in CI <sup>-</sup> form, g/cm <sup>3</sup>	1.05-1.10	

## **Processing Characteristics:**

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