

# **CATION EXCHANGE RESIN TOKEM-250**

TR2227-019-72285630-2009

High capacity weak acid cation exchange resin (porous type). Its features are improved particle range composition, osmotic stability and high total and dynamic exchange capacities. The resin contains minimum mineral and organic impurities.

GENERAL DESCRIPTION			
Matrix	Acryl-DVB		
Functional group	carboxyl		
Polymer structure	macroporous		
Ionic form	H + Hydrogen Na+ Sodium		

#### Application area:

purification of residential and potable water.

### **Physical and Chemical Characteristics:**

CHARACTERISTICS	STANDARD VALUE	
Appearance	Spherical opaque beads, white to light yellow in colour	
Ionic form	H+ Na+	
Particle size range, mm	0.315-1.600	
Uniformity coefficient, max	1.6	
Volume of effective size fraction, % min	98	
Effective particle size, mm	0.4-0.6	
Moisture retention, %	45-55 55-65	
Osmotic stability, %, min	98	
Total capacity, mmol/cm <sup>3</sup> (mg-eq/cm <sup>3</sup> ), min	4.3	
Dynamic exchange capacity with regenerant requirement target, (g-eq/m³), min	2300	
Mass fraction of ammonium ions in water product, mg/dm³, max	0.4	



## Table con'd (Physical and Chemical Characteristics)

Permanganate demand of aqueous extract in oxygen equivalent, mg/dm³, max: at 20 ℃ at 80 ℃	97	4 6
Odour intensity of water filter at 100 ° C, units, max		1
Shipping weight, g/cm³	0.74-0,80	0.78-0.88
Particle density, g/cm <sup>3</sup>	1.14-1.20	1.20-1.25

### **Processing Characteristics:**

SUGGESTED OPERATING CONDITIONS AND MODES:		
Bed depth, mm min	600	
Temperature limit, ℃	120	
p H limit	5-14	
Swelling at H <sup>+</sup> →Na <sup>+</sup> , % Na <sup>+</sup> → Ca <sup>+</sup> , %	40–60 7	
Regenerant, % H + form	(0.3-0.8) H <sup>2</sup> SO <sup>4</sup> (4-5) HCI	
Total rinse requirement, BV	6–10	
Backwashing bed expansion, %	80-100	