TOKEM | PRODUCTION ASSOCIATION

CATION EXCHANGE RESIN TOKEM-120

TR 2227-036-72285630-2014

Strong acid cation resin (porous type). It is characterized with high chemical stability and mechanical strength.

GENERAL DESCRIPTION	
Matrix	styrene-DVB
Functional group	Sulfonic acid
Polymer structure	porous
Ionic form	H^+ Hydrogen Na^+ Sodium

Application area:

This cation exchange resin can be applied in all conventional ion exchange processes, including:
- in softening and demineralization water treatment systems with co-current regeneration;
- processing medium and waste water treatment;
- separation and exclusion of non-ferrous and heavy metals;
- as a catalyst;
- condensate polishing.

Physical and Chemical Characteristics:

CHARACTERISTICS	STANDARD VALUE	
Appearance	Spherical beads, light brown to dark grey	
Ionic form	H^+	Na^+
Particle size range, mm	0.315-1.250	
Uniformity coefficient, max	1.6	
Volume of effective size fraction, % min	96	
Effective particle size, mm max	0.40-0.55	
Moisture retention, %	50-60	45-55
Osmotic stability, %, min	98	
Total uncracked beads as shipped, %, min	90	
Total capacity, mmol/cm^3 (mg-eq/cm^3), min	1.6	1.7
Shipping weight, g/cm^3	0.72-0.80	0.75 – 0.85
Particle density, g/cm^3	1.16-1.24	1.23-1.28

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Processing Characteristics:

SUGGESTED OPERATING CONDITIONS AND MODES:	
Bed depth min, mm	800
Temperature limit, ° C	120
pH limit	0-14
Swelling at $H^+ \rightarrow Na^+$, %	5-8
Regenerant, %: H^+ form Na^+ form	 (1-1,5) H_2SO_4 (4-5) HCl (6-10) NaCl
Total rinse requirement, BV	2-5
Backwashing bed expansion, %	50-80

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