

## CATION EXCHANGE RESIN TOKEM-145-10 NR

TR 2227-042-72285630-2015

Strong acid nuclear grade cation exchange resin (gel type) with uniform particle range composition.

GENERAL DESCRIPTION	
Matrix	Styrene-DVB
Functional group	Sulfonic Acid
Polymer structure	gel
Ionic form	H <sup>+</sup> Hydrogen

### Application area (according to Standard Protocol RD EO 1.1.2.25.0161-2009 and Industrial Standard STO 1.1.1.02.013.0715-2009):

- for using in cation exchange filters of special water treatment SVO-1 in SCWR reactors;
- for using in cation exchange filters of special water treatment SVO-2,4,6 (boron concentrate treatment) in SCWR reactors;
- for using in cation exchange nonregenerable filters of special water treatment SVO in LWGR reactors.

### Physical and Chemical Characteristics (according to Standard STO 1.1.1.07.003.0368-2011):

CHARACTERISTICS	STANDARD VALUE
Appearance	Spherical beads, yellow to dark brown in colour
Mean particle size, mm Uniformity coefficient, max	0.65 ± 0.05
Volume ratio of beads passing through N04 mesh, % max	1.1
Osmotic stability, %, min	1.0
Total uncracked beads as shipped, %, min	94
Moisture retention, %	97
Total capacity, mmol/cm <sup>3</sup> (mg-eq/cm <sup>3</sup> ), min	45-51
Product oxidation in oxygen equivalent, mg/g, max	2.0
Mass fraction of chloride ions, mg/cm <sup>3</sup> , max	0.5
Mean mechanical strength, g/bead, min	0.01
Beads with toughness below 200 g/bead, %, max	400
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