



## ANION EXCHANGE RESIN TOKEM-840 MB/85 (R)

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Strong base anion exchange resin (gel type) with uniform particle range composition. It possesses uniformity range of less than 1.1. Conversion to OH<sup>-</sup> form is not less than 85%.

High monodispersity and the absence of small fraction contributes to significantly decreased pressure drop across the bed height. This, in turn, enables high flow rates enhancing regeneration effectiveness and reducing reagent and rinsing water requirements. Increased regeneration rate allows decreasing negative impact of organic substances on the ionite.

Uniform particle composition, compact bed packing, and no dead zones increase diffusion rate and contact area. These features improve ion exchange kinetics.

A high osmotic stability of the monodisperse resin results in increase in its service life compared to that of polydispersed products.

### GENERAL DESCRIPTION

Matrix	styrene-DVB
Functional group	quaternary ammonium basic groups (type 1)
Polymer structure	gel
Ionic form	OH <sup>-</sup> hydroxyl

### Application area:

Monodispersed anion exchange resin TOKEM-840 MB/85 (R) can be applied in all conventional water treatment systems, including:

- mixed bed regeneration filters in combination with monodisperse cation exchange resin TOKEM-140-10 MB (R).

### Physical and Chemical Characteristics:

CHARACTERISTICS	STANDARD VALUE
Appearance	Spherical beads, bright yellow to brown in colour

**PARTICLE SIZE DISTRIBUTION**

Mean particle size, mm	0.575±0.025
Uniformity coefficient, max	1.1
Volume ratio of beads passing through N04 mesh, % max	1.0
Volume ratio of beads on N08 mesh, % max	2.0
Osmotic stability, %, min	95
Total capacity, mmol/cm <sup>3</sup> (mg-eq/cm <sup>3</sup> ), min	1.1
Total uncracked beads as shipped, %, min	95
Equilibrium static exchange capacity, mmol/cm <sup>3</sup> (mg-eq/cm <sup>3</sup> ), min	1.0
Difference between settling times of anion and cation resins, sec, max	7
Electrostatic coefficient, % max	20
Shipping weight, g/cm <sup>3</sup>	0.68-0.74
Particle density, g/cm <sup>3</sup>	1.06-1.10

**Processing Characteristics:**
**SUGGESTED OPERATING CONDITIONS AND MODES:**

Bed depth, min, mm	800
Temperature limit, ° C	60
Pressure drop coefficient, kPa·h/m <sup>2</sup>	1.0
Total rinse requirement, BV	2-4
pH limit	1-14
Swelling at Cl <sup>-</sup> → OH <sup>-</sup> , %	20
Regenerant, %	(3-4) NaOH
Backwashing bed expansion, %	80-100