

Product Data Sheet

DIAION™ CSK40

DIAION™ CSK40 is a cation exchange resin with a uniform particle size. It has 14% cross-linkages and excellent properties. A wide range of applications, especially for condensate polishing in power plants, is recommended.

Product

Grade Name	DIAION™ CSK40	
Type	Strong Acid Cation	
Matrix	Styrene-DVB, Gel	
Functional Group	Sulfonic acid	
Ionic Form	Na ⁺	

Specification

Whole Bead Count	-	95 min.
Salt Splitting Capacity	meq/mL	2.4 min.
Water Content	%	29 - 39
Particle Size Distribution 500 - 850 μm	%	95 min.
Particle Size Distribution thr. 500 μm	%	1 max.
Mean Particle Size	μm	650 ± 50
Uniformity Coefficient	-	1.2 max.

Typical Properties

Shipping Density	g/L	860
Particle Density	g/mL	1.37
Total Swelling (Na ⁺ to H ⁺)	%	5

Recommended Operating Conditions

Maximum Operating Temperature	°C	120
Operating pH Range		0 - 14
Minimum Bed Depth	mm	450
Service Flow Rate	m/h	Fast Rinse 5 - 60 Condensate Polishing 40 - 150
Regenerant		HCl H ₂ SO ₄
Regenerant Concentration	%	HCl 4 - 8 H ₂ SO ₄ 1 - 10
Regenerant Level	g/L	30 - 150
Regenerant Flow Rate	m/h	1 - 10
Total Rinse Requirement	BV	3 - 6

Hydraulic Characteristics

The approximate pressure drop at various temperatures and flow rates for each meter of bed depth of DIAION™ CSK40 resin in normal down flow operation is shown in the graphs below.

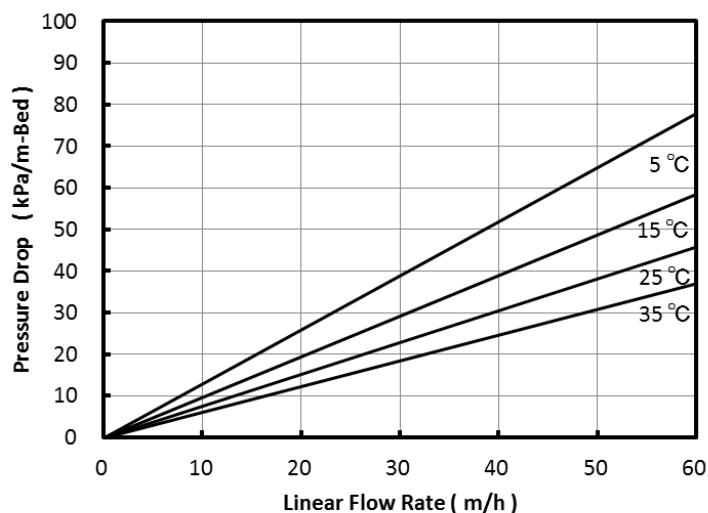


Fig. 1 Pressure Drop of CSK40

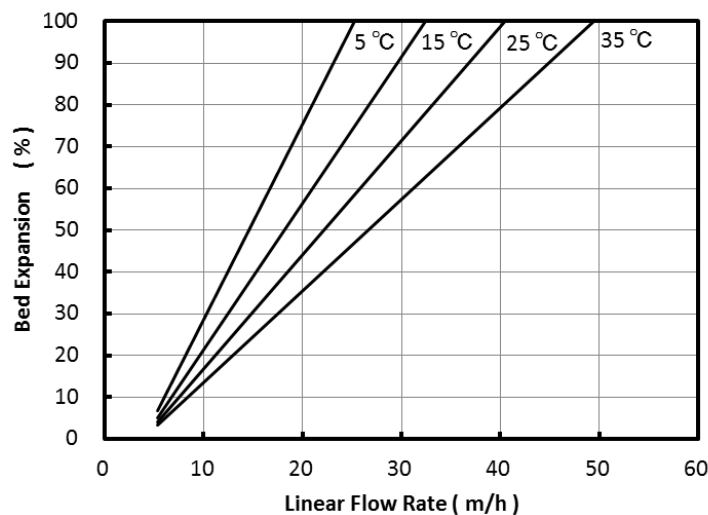


Fig. 2 Bed Expansion of CSK40

Operational Capacity Data

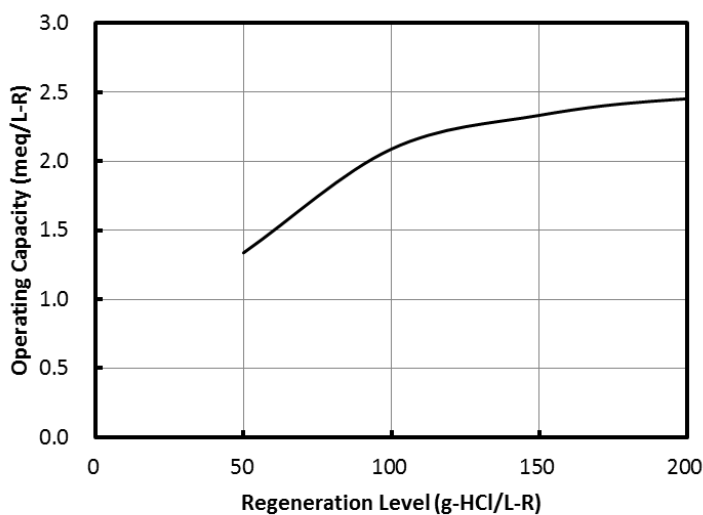


Fig. 3 Operational Capacity Data of CSK40
Regenerant : 4 % HCl

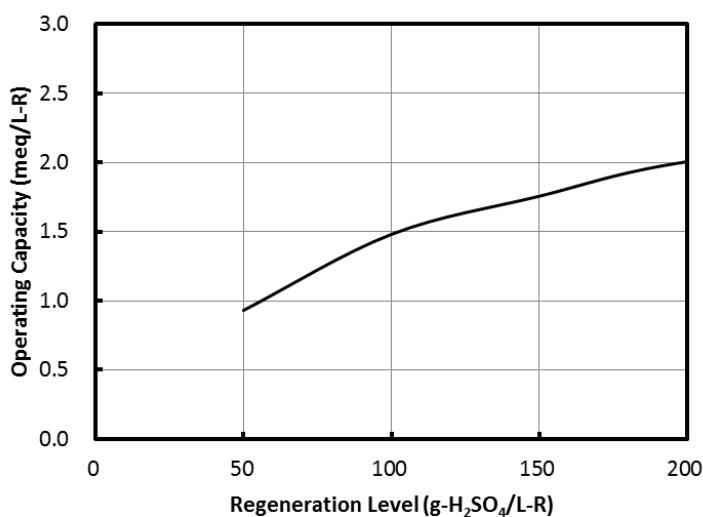


Fig. 4 Operational Capacity Data of CSK40
Regenerant : 5 % H₂SO₄

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