

## Product Data Sheet

## DIAION™ CRB05

DIAION™ CRB05 is a glucamine type chelating resin. It has a high selectivity for borate ion and higher capacity than DIAION™ CRB03. It is recommended for borate separation process from various solutions, including brines, sea water and waste water.

## Product

Grade Name	DIAION™ CRB05	
Type	Chelating Resin	
Matrix	Styrene-DVB, Highly Porous	
Chemical Structure		
Functional Group	N-Methyl Glucamine	
Ionic Form	Free Base	

## Specification

Whole Bead Count	-	95 min.
Total Exchange Capacity	meq/mL	0.95 min.
Water Content	%	43 - 53
Particle Size Distribution on 850 μm	%	10 max.
Particle Size Distribution thr. 300 μm	%	1 max.
Effective Size	mm	0.35 min.
Uniformity Coefficient	-	1.6 max.

## Typical Properties

Shipping Density	g/L	750
Mean Particle Size	μm	550
Adsorption Isotherm of Boric Acid	mg/mL-R	25
Particle Density	g/mL	1.13
Total Swelling (FB to Cl)	%	11


**Biokal**

© +31529485928


 info@biokal.com  
<https://www.biokal.com>

**MITSUBISHI**  
**CHEMICAL**

**DIAION™ CRB05****Recommended Operating Conditions**

Maximum Operating Temperature	°C	100
Effective pH Range		6 - 10
Minimum Bed Depth	mm	800
Service Flow Rate	m/h	5 - 20
Eluate		HCl
		H <sub>2</sub> SO <sub>4</sub>
Eluate Concentration	%	HCl 2 - 4
		H <sub>2</sub> SO <sub>4</sub> 1 - 5
Eluate Level	g/L	50 - 100
Eluate Flow Rate	m/h	1 - 3
Regenerant		NaOH
Regenerant Concentration	%	NaOH 2 - 4
Regenerant Level	g/L	20 - 40
Regenerant Flow Rate	m/h	1 - 3
Total Rinse Requirement	BV	10 - 20



## Hydraulic Characteristics

The approximate pressure drop at various temperatures and flow rates for each meter of bed depth of DIAION™ CRB05 resin in normal down flow operation is shown in the graphs below.

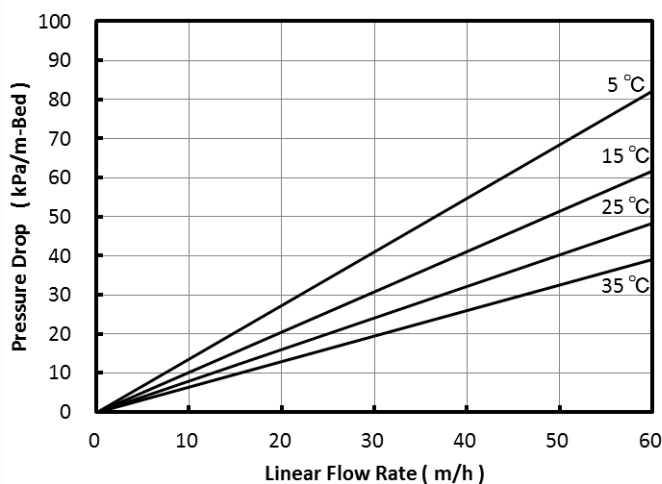


Fig. 1 Pressure Drop of CRB05

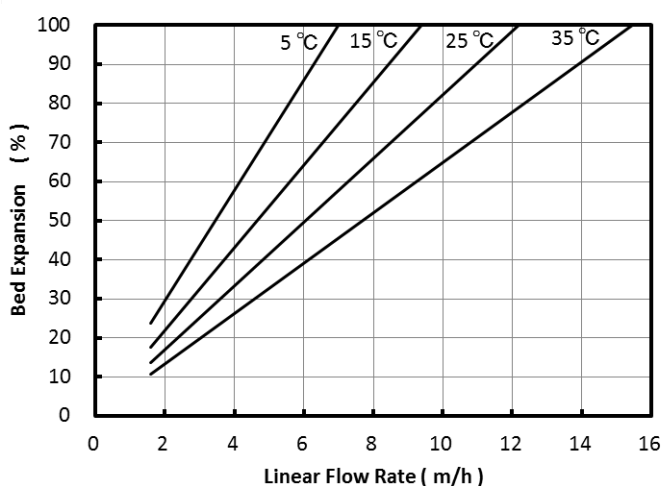


Fig. 2 Bed Expansion of CRB05

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