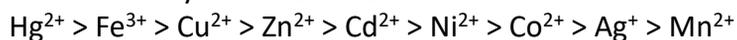


Product Data Sheet

DIAION™ CR20

DIAION™ CR20 is a polyamine type chelating resin. It has a high selectivity for divalent metal ions, especially transition metal elements, than monovalents. It is recommended for chemical process separations, and metals removal and recovery from wastewater.

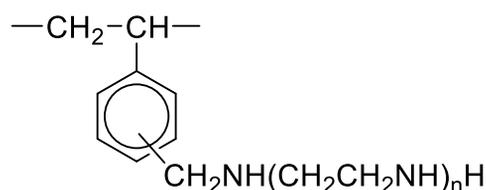
The Selectivity of DIAION™ CR20 toward metal ions :



Product

Grade Name	DIAION™ CR20
Type	Chelating Resin
Matrix	Styrene-DVB, Highly Porous

Chemical Structure



Functional Group	Polyamine
Ionic Form	Free Base

Specification

Whole Bead Count	-	95 min.
Cu Adsorption Capacity	mmol/mL	0.4 min.
Water Content	%	50 - 60
Particle Size Distribution on 1180 μm	%	5 max.
Particle Size Distribution thr. 300 μm	%	1 max.
Effective Size	mm	0.40 min.
Uniformity Coefficient	-	1.6 max.

Typical Properties

Shipping Density	g/L	640
Mean Particle Size	μm	570
Particle Density	g/mL	1.05
Total Swelling (FB to Cl ⁻)	%	10

Recommended Operating Conditions

Maximum Operating Temperature	°C	100
Effective pH Range		4* - 10**
Minimum Bed Depth	mm	800
Service Flow Rate	BV/h	10 - 30
Regenerant		HCl
Regenerant Concentration	%	HCl 4 - 10
Regenerant Level	g/L	100 - 200
Regenerant Flow Rate	BV/h	2 - 10
Total Rinse Requirement	BV	10 - 20

1 BV(Bed Volume)=1 m³/m³-resin

*Some metal ions can be slightly adsorbed at a pH lower than 4.

**In an alkaline solutions, ions may be precipitated as hydroxides.

Hydraulic Characteristics

The approximate pressure drop at various temperatures and flow rates for each meter of bed depth of DIAION™ CR20 resin in normal down flow operation is shown in the graphs below.

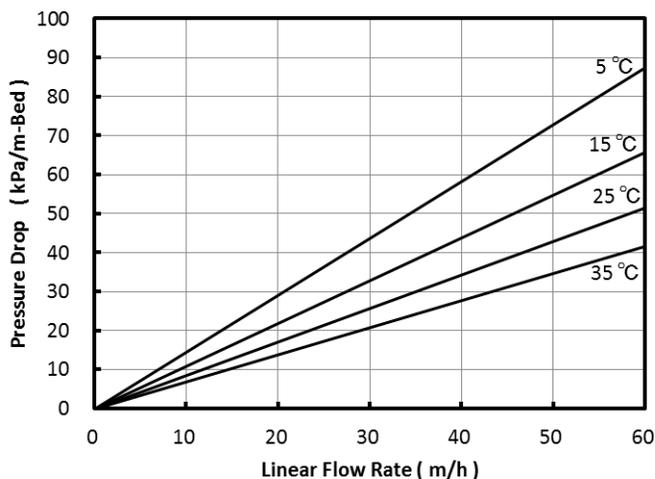


Fig. 1 Pressure Drop of CR20

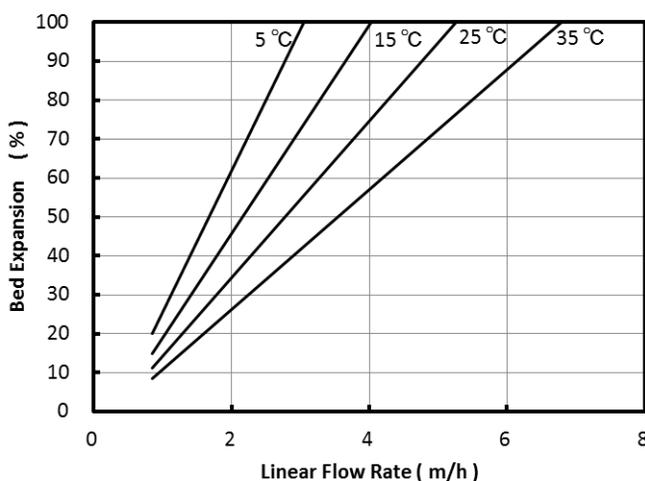


Fig. 2 Bed Expansion of CR20

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