

## Chromium Removal Resin

### Anion Exchange Resin

**DOSHION DHMR 2** resin is a Macroporous strong base anion resin based on Polystyrene matrix with specially designed functional groups for removal of Chromium present in form of Cr<sup>+3</sup> or Cr<sup>+6</sup> oxidation states in drinking water. Cr<sup>+6</sup> ionic forms are anionic in character, such as HCrO<sub>4</sub><sup>-</sup>, CrO<sub>4</sub><sup>-2</sup>, Cr<sub>2</sub>O<sub>7</sub><sup>-2</sup>, so it can be selectively removed from drinking water with **Doshion DHMR 2**

#### Characteristics of DHMR 2 :

- Has high physical stability
- Has highest selectivity and loading capacity
- Ideal for removal of Chromium from water
- Can easily be regenerated even where very strong binding of Chromium is present.

Properties	
Matrix	Cross linked Polystyrene Macroporous
Functional group	Chromium selective
Ionic Form	Cl <sup>-</sup> - Chloride
Physical Form	Opaque Cream Spherical Beads
Particle size (mm)	0.30 – 1.20
Uniformity Coefficient (max)	1.7
Moisture Content, Cl form %	46 – 54 by wt.
Total Exchange Capacity (meq/ ml) (min)	1.2 Cl <sup>-</sup> Form
Bulk Density / Shipping Weight (gm/L)	700 – 720
Density	1.10 to 1.14
Reversible Swelling % Cl <sup>-</sup> to OH <sup>-</sup>	17 %
Solubility in Common Solvents	Insoluble

Operating Conditions		
Minimum Bed Depth	mm	750
Operating Temperature	°C (Max)	70
Operating pH		0 – 14
Regenerant Concentration	%	4-5 (NaOH)
Regenerant Flow Rate	*BV/hr	2 – 6
Regenerant Contact Time	Minutes	30 min
Regeneration Level 100%	Kg/ m <sup>3</sup> of Resin	60-100 (NaOH)
Displacement Rinse Rate	*BV/hr	2 – 6
Displacement Rinse Volume	#BV	1 – 2
Fast Rinse Rate	*BV/hr	10 – 40
Fast Rinse volume	#BV	4 – 10
Service flow rate	*BV/hr	10 – 40

\* Bed Volume/ Hour ; # Bed Volume

## Full Range of Ion Exchange Resins

Cation Exchange Resin	Anion Exchange Resin	DM Resin
CSA 121	GA 11	DMB 13
CSA 121 - FG	GA 11 UPS	DMB 13 UPS
CSA 9	GA 12	DMB 13 S
CSA 9 UPS	GA 13	
CSA 9 - FG	GA 13 UPS	
CSA 9 L	ASB 108	
CSA 9 L Na - FG	ASB 171	
CSA 29	ASB 8010 D	
CSA 29 UPS	ASB 8010 D UPS	
CSA 609 D	ASB 8020 D	
CWA 63	AWB 7020 D	
CWA 92 D	AWB 7030 D	
CSA 309	AWB 7050 D	
	AWB 7050 D UPS	
	GA 711	
<b>Special Application Ion Exchange Resin</b>		
DCHR 71	CGC 1200	DBR 108
DCHR 72	CMC 1900	FRC 10
DCHR 74	CMC 2400	ASB 108 H UPS
DCHR 78	DAAR 85	GA 13 H UPS
DCHR 79	DAAR 312	CWS 66 D
DIRM	DAAR 313	IPSR 550
DCR 11	DAAR 412	DMB 11
DHMR 2	DMB 10	DMB 13 S

**doshion®**  
*Translating Source Into Resource*

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