

Demineralization Resin

Strong Acid Cation(Gel)

DOSHION CSA 29 resin is a strongly acidic uni-functional cross linked polystyrene structure containing Sulphonic Acid as functional groups. It is a premium grade gel type cation exchange resin with high capacity resin supplied in Hydrogen as well as Sodium form with excellent exchange capacity and physical stability. The resin is used in industrial and domestic water softening applications having high Calcium & Magnesium salts.

The Characteristics of CSA 29 :

- More resistance to oxidation than CSA 9.
- Excellent for softening, dealkalisation, demineralisation and chemical process applications.
- Ideal for condensate polishing in Ammonia cycle

Properties	
Matrix	Cross linked Polystyrene Gel
Functional group	SO ₃ (Sulphonic)
Ionic Form	H ⁺ – Sodium Na ⁺ –Hydrogen
Physical Form	Hard Moist Beads
Particle size (mm)	0.30- 1.20
Moisture Content %	46-57 H ⁺ form 40-45 Na ⁺ form
Total Exchange Capacity (eq/L) (min)	2.00 H ⁺ form >= 2.10 Na ⁺ form
Bulk Density / Shipping Weight (gm/L)	780-820
Operating pH Range	0-14
Solubility in common solvents	Insoluble
Operating temperature °c(max)	120
Volume change % (max): Na ⁺ to H ⁺	6-8

Operating Conditions		
Minimum Bed Depth	mm	750
Regenerant Concentration	%	1-5 (H ₂ SO ₄) ^Φ 4-5 (HCl)
Regenerant Flow Rate	*BV/hr	2 – 8
Regenerant Contact Time	Minutes	30
Regeneration Level	Kg/ m ³ of Resin	60-150 (H ₂ SO ₄) 40-150 (HCl)
Displacement Rinse Rate	*BV/hr	2 – 8
Displacement Rinse Volume	#BV	1-2
Fast Rinse Rate	*BV/hr	10-40
Fast Rinse volume	#BV	4 – 10

* Bed Volume/ Hour ; # Bed Volume

Φ Sulfuric Acid concentration must be adjusted according to calcium content in the feed water

Evaluation copy

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	
Special Application Ion Exchange Resin		
DCHR 74	CGC 1200	DBR 108
DCHR 78	CMC 1900	FRC 10
DIRM	CMC 2400	ASB 108 H UPS
DCR 11	DAAR 85	GA 13 H UPS
DMB 10	DAAR 312	CWS 66 D
DMB 11	DAAR 313	IPSR 550
DMB 13 S	DAAR 412	

doshion®
Translating Source Into Resource

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