

Demineralization Resin

Strong Acid Cation (Nuclear Grade)

DOSHION CSA 309 is a specifically developed Nuclear Grade GEL Type Strong Acid Cation Exchange Resin product by the sulfonation of styrene-divinylbenzene copolymers. It has a high capacity with excellent physical and chemical properties especially designed to remove radioactive isotopes from aqueous solutions. It is manufactured under the most stringent quality controls.

DOSHION CSA 309 is a factory regenerated resin, ready to use application for the nuclear industry. The resin is supplied primarily in H⁺ form.

Properties	
Matrix	Cross Linked Polystyrene
Functional group	SO ₃ (Sulphonic)
Ionic Form	H ⁺ – Hydrogen
Physical Form	Hard Moist Beads
Particle Size (mm)	0.30 – 1.20 (mean)
Moisture Content %	48- 54 H ⁺ form
Total Exchange Capacity (Min) (eq/L)	1.8 H ⁺ form
Conversion (Min)	99.0 % H ⁺ form
Bulk Density or Shipping Weight (gms/ ltr)	800 – 830 H ⁺ form
Operating pH range	0 – 14
Solubility in common solvents	Insoluble
Volume Change %(Max): Na ⁺ to H ⁺	8-10

Operating Conditions		
Operating temperature °C (max)	°C	120
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 min
Regeneration level	Kg/ m ³ of Resin	60-150 (H ₂ SO ₄) 30 -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
Service flow rate	*BV/hr	10-40

* Bed Volume/ Hour ; # Bed Volume

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

Full Range of Ion Exchange Resins

Cation Exchange Resin	Anion Exchange Resin	Speciality Resin	DM Resin
CSA 121	GA 11	DCHR 74	DMB 13
CSA 9	GA 12	DCHR 78	
CSA 9 L	GA 13	DIRM 412	
CSA 29	ASB 108	DCR 11	
CSA 609 D	ASB 171	CWS 66 D	
CWA 63	ASB 1080 D UPS	DMB 13 S	
CWA 92 D	ASB 8020 D	CGC 1200	
CSA 309	AWB 7020 D	CMC 1900	
	AWB 7030 D	CMC 2400	
	AWB 7050 D		
	GA 711		

Full Range of Membrane Performance Chemical

RO Membrane Chemicals	UF Membrane Chemicals	EDI Membrane Chemicals	Speciality Chemicals
DCC – Bior	DCC - UFC - I	EDC - SNO - IO - 56	Doshion - 1180
DCC – Inor	DCC - UFC - O	EDC - SNO - IO - 74	Doshion - C 8100
DCC - Col	DCC - UFC - C		Doshion - 3426
DCC - Stor	DCC - UFC - S		Doshion - 9711 (P)
Doshion - 51 (HS)			Doshion - 9718 (Z)
Doshion - 52 (L)			
Doshion - 53			
DoScale - 65			
Doshion - 6311 - LS			

Full Range of Pharmaceutical Polymers

Active Pharma Ingredients	Excipients	Speciality Polymers	Ready Mix & Ready to Use
Doshion P-504 (Sodium Polystyrene Sulphonate USP / EP)	Doshion P-504 (Polystyrene Resin)	Doshion P-520	Doshion P-542 AB (R)
Doshion P-548 BP (Calcium Polystyrene Sulphonate BP)	Doshion P-514	Doshion P-535	Azithromycin Taste Masked (7.5%)
Doshion P-548 JP (Calcium Polystyrene Sulphonate JP)	Doshion P-542		
Doshion P-550 (Cholestyramine Resin USP / EP)	Doshion P-542 AB		
	Doshion P-542 CP		
	Doshion P-542 D		
	Doshion P-544 C		
	Doshion P-544 R		
	Polyflash Doshion P-544 DS		
	Doshion P-544 DS (Cipro)		
	Polyflash Doshion P-544 DB		
	Polyflash Doshion P-544 D		
	Doshion P-550		
	Doshion P-551 (Polyacrilix Resin)		

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Translating Source Into Resource

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