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EKO-TRADING CO., LIMITED

Ion Exchange Resins

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Poly (St-DVB) based gel type strong acidic cation exchange resins

Suqing	Ionic form	Mass capacity, meq/g	Volume capacity, meq/m	Moisture, %	Bulk density, g/ml	Specific density, g/ml	Particle size, %	Effective diameter, mm	Uniformity coefficient	Whole beads after (attrition) osmotic attrition	Color	Remarks	
001x4	Na	≥4.5	≥1.4	52-58	0.75-0.80	1.18-1.25	0.315-1.25 mm ≥95	0.4-0.7	≤1.6	(≥90) ≤60	Light yellow to brown	Mainly used in water softening, demineralization and antibiotic extraction. Domestic gel type standard. Suitable for softening and demineralization. Also widely used in glutamate and other amino acids recovery and antibiotic extraction, etc.	
001x4H	H	≥5.0	≥1.25	58-65	0.72-0.78	1.10-1.20							
001x7	Na	≥4.5	≥1.9	45-50	0.77-0.87	1.25-1.29							
001x7H	H	≥5.0	≥1.8	51-56	0.73-0.83	1.17-1.22							
001x7FC	Na	≥4.5	≥1.9	45-50	0.77-0.87	1.25-1.29	0.45-1.25 mm ≥95	≥0.5				For floating bed with high flow rate.	
001x7MB	Na	≥4.5	≥1.9	45-50	0.77-0.87	1.25-1.29	0.5-1.25 mm ≥95	0.55-0.9	≤1.4			With good mixture and separation properties with anion resins in mixed bed.	
001x8	Na	≥4.5	≥2.0	43-48	0.78-0.88	1.26-1.30	0.315-1.25 mm ≥95	0.4-0.7				International gel type standard. Suitable for water softening and demineralization. Used also in amino acids and antibiotics.	
001x8FC	Na	≥4.5	≥2.0	43-48	0.78-0.88	1.26-1.30	0.45-1.25 mm ≥95	≥0.5	≤1.6				
001x8MB	Na	≥4.5	≥2.0	43-48	0.78-0.88	1.26-1.30	0.5-1.25 mm ≥95	0.55-0.9	≤1.4				
001x10	Na	≥4.4	≥2.2	38-43	0.80-0.88	1.28-1.32	0.315-1.25 mm ≥95	0.4-0.7	≤1.6				
001x10H	Na	≥4.9	≥2.0	43-59	0.78-0.83	1.22-1.28						For water treatment and Biochemical extraction.	
001x12	Na	≥4.3	≥2.3	35-40	0.80-0.88	1.28-1.32							
001x16	Na	≥4.0	≥2.4	28-38	0.83-0.93	1.30-1.35						Mainly used in antibiotic extraction and stevioside desalination.	
002xSC Na	Na	≥4.4	≥2.1	38-43	0.81-0.87	≥1.30	0.63-1.25 mm ≥95	≥0.63	≤1.4				Strong cation resin, combined with D113SC, specific for bi-layered bed system.
002xSC H	H	≥4.9	≥1.9	46-51	0.78-0.84	≥1.24							
SQ-60C	Na	≥4.5	≥2.0	43-48	0.78-0.88	1.26-1.30	0.7-0.9 mm ≥95		≤1.2				Gel type strong cation resin with uniform particle sizes. Used in salt DI water production, having good dynamic properties and low pressure drop. Could be used alone or combined with SQ-70A.
SQ-66	Na	2.5-4.0	≥1.5	35-45	0.78-0.88	1.15-1.25							Partially sulphonated resin for softening. Significant saving in salt usage.
SQ-68	Na	≥4.35	≥1.9	45-50	0.78-0.88	1.25-1.29	0.315-1.25 mm ≥95	0.4-0.7	≤1.6	(≥90)	Yellow	Non-solvent cation resin. Very low contamination. Especially suitable for drinking water treatment.	
SQ-605	H	≥5.0	≥1.75	51-56	0.70-0.80	1.17-1.22						Mainly used for amino acid recovery, with high capacity and easy to elute.	

Poly (St-DVB) based macroporous type strong acidic cation exchange resins

Suqing	Ionic form	Mass capacity, meq/g	Volume capacity, meq/m	Moisture, %	Bulk density, g/ml	Specific density, g/ml	Particle size, %	Effective diameter, mm	Uniformity coefficient	Whole beads after (attrition) osmotic attrition	Color	Remarks
D001	Na	≥4.35	≥1.8	45-50	0.77-0.85	1.25-1.28	0.315-1.25 mm ≥95		≤1.6	≥90	Light grey to light brown	Very high resistance to oxidation, physical breakage, osmotic shock fracture and organic fouling. Suitable for water and chemical treatment.
D001H	H	≥4.80	≥1.7	48-58	0.74-0.80	1.16-1.24						
D001FC	Na	≥4.35	≥1.8	45-50	0.77-0.85	1.25-1.28	0.45-1.25 mm ≥95	≥0.5				
D001MB	Na	≥4.35	≥1.8	45-50	0.77-0.85	1.25-1.28	0.5-1.25 mm ≥95		≤1.4			
D001SC	Na	≥4.35	≥1.8	45-50	0.77-0.85	1.25-1.28	0.63-1.25 mm ≥95	≥0.63				Specific for bi-layered bed with D113SC.
D001TR	Na	≥4.35	≥1.8	45-50	0.77-0.85	1.25-1.28	0.71-1.25 mm					Specific for tri-layered bed with D201-TR and S-TR.
SQD-65	H	≥4.80	≥2.0	45-55	0.75-0.85	1.18-1.26	0.315-1.25 mm ≥95	0.4-0.7	≤1.6		Light brown	Very high capacity. Mainly used to cconvert Vc-Na into VC. SQD-67 has higher capacity than SQD-65.
SQD-67	H	≥4.50	≥2.2	40-45	0.75-0.85	1.30-1.40						
SQD-69	H	≥4.60		35-45	0.80-0.90	1.20-1.30					Black	High oxidation resistance performance, can be used in the environment with strong oxidant, such as to recover Cu and V from the production of dicarboxyl.

Polyacrylate based gel and macroporous type weak acidic cation exchange resins

Suqing	Ionic form	Mass capacity, meg/g	Volume capacity, meq/ml	Moisture, %	Bulk density, g/ml	Specific density, g/ml	Particle size, %	Effective diameter, mm	Uniformity coefficient	Whole beads after (attrition) osmotic attrition	Max swelling rate	Color	Remarks
112	H	≥10.0	4.3	40-50	0.72-0.82	1.15-1.25	0.315-1.25 mm ≥95	0.4-0.7	≤1.6	(≥90)	H → Na 105%	Light yellow	Gel type weak acid cation resin. With good mechanical strenght and no oligo-agglomeration, mainly used in drinking water softening and antibiotics extraction.
D113	H	≥10.8	4.3	42-52	0.72-0.8	1.14-1.20	0.315-1.25 mm ≥95	0.4-0.7	≤1.6	≥95	H → Na 65%		Excellent resistance to physical breakage, osmotic shock fracture and organic fouling. High total and working capacity. Suitable for softening and dealkalization. FC for floating bed and SC for double-layer bed.
D113FC	H	≥10.8	4.3	42-52			0.45-1.25 mm ≥95	≥0.5	≤1.6				
D113SC	H	≥11.0	4.4	42-52			0.315-0.63 mm ≥95	0.35-0.5	≤1.4				
SQD-80	H	≥11.0	4.3	42-52	0.72-0.8	1.14-1.20	0.45-1.25 mm ≥95	≥0.5	≤1.6				
SQD-85	H	≥10.5		50-60	0.7-0.8	1.10-1.20	0.315-1.25 mm ≥95	0.4-0.7	≤1.6		H → Na 100%	White	With excellent kinetic properties, mainly used in water treatment and antibiotic adsorption.
SQD-88	H	≥10.0		55-65	0.7-0.8	1.10-1.20	0.315-1.25 mm ≥95	0.4-0.7	≤1.6		H → Na 100%		Made from metacrylic acid. With excellent oeganic fouling resistance, mainly used in Vitamin B12 extraction.
SQD-112	H	≥10.5		50-60	0.7-0.8	1.10-1.20	0.315-1.25 mm ≥95	0.4-0.7	≤1.6	≥90	H → Na 100%		Mainly used for extraction of co-listine sulfate, with high capacity, high selectivity and easy to elute.

Poly(St-DVB) based gel type strong base anion exchange resins

Suqing	Ionic form	Salt split (max regenerable) capacity, meq/g	Volume capacity, meq/ml	Moisture, %	Bulk density, g/ml	Specific density, g/ml	Particle size, %	Effective diameter, mm	Uniformity coefficient	Whole beads after (attrition) osmotic attrition	Max swelling rate	Color	Remarks	
201x2	Cl	≥4.0	≥0.75	72-80	0.65-0.70	1.01-1.07	0.315-1.25 mm ≥95	0.45-0.7	≤1.6	(≥90)	Cl → OH 40%	Colorless to light yellow	With excellent kinetic properties, mainly used in antibiotic extraction and organic acid adsorption.	
201x4	Cl	≥3.7 (3.9)	≥1.20	50-60	0.66-0.71	1.06-1.10					Cl → OH 33%		International gel type standard. With good kinetic properties and high working capacity. For demineralization and silica removal. Widely used in Pharmaceutical and Food industries either.	
201x40H	OH	≥3.8 (4.0)	≥1.00	60-70	0.65-0.70	1.05-1.09								
201x7	Cl	≥3.5 (3.7)	≥1.35	42-48	0.67-0.73	1.07-1.10	0.315-1.25 mm ≥95	0.4-0.7						Domestic gel standard. With high capacity and good mechanical strenght. FC for floating bed and SC for double-layer bed. The correspondent OH-type resins are also available.
201x70H	OH	≥3.6 (3.8)	≥1.10	53-58	0.66-0.71	1.06-1.09								
201x7FC	Cl	≥3.5 (3.7)	≥1.35	42-48	0.67-0.73	1.07-1.10	0.45-1.25 mm ≥95	≥0.5	≤1.4	(≥90) ≥60	Cl → OH 27%			Gel type strong anion resin with uniform particle sizes. Having good kinetic properties and low pressure drop. Could be used alone or combined with SQ-60C.
201x7SC	Cl	≥3.5 (3.7)	≥1.30	42-48	0.67-0.73	1.07-1.10	0.63-1.25 mm ≥95	≥0.63						
201x7MB	Cl	≥3.5 (3.7)	≥1.35	42-48	0.67-0.73	1.07-1.10	0.4-0.9 mm ≥95	0.5-0.8						
SQ-70A	Cl	≥3.5 (3.7)	≥1.35	45-50	0.67-0.73	1.07-1.10	0.5-0.7 mm ≥95		≤1.2					
202-II	Cl	≥3.5 (3.6)	≥1.25	48-55	0.68-0.75	1.08-1.15	0.315-1.25 mm ≥95	0.4-0.7	≤1.6	(≥90)	Cl → OH 25%			Type II gel anion resin. Very high working capacity for demineralization.
202-II SC	Cl	≥3.4 (3.5)	≥1.20	48-55	0.68-0.75	1.08-1.15	0.63-1.25 mm ≥95	≥0.63	≤1.4					

Poly(St-DVB) based macroporous type strong base anion exchange resins

Suqing	Ionic form	Salt split (max regenerable) capacity, meq/g	Volume capacity, meq/ml	Moisture, %	Bulk density, g/ml	Specific density, g/ml	Particle size, %	Effective diameter, mm	Uniformity coefficient	Whole beads after (attrition) osmotic attrition	Max swelling rate	Color	Remarks			
D201	Cl	≥3.7 (4.0)	≥1.20	50-60	0.65-0.73	1.06-1.10	0.315-1.25 mm ≥95	0.4-0.7	≤1.6	(≥90)	Cl → OH 20%	White to light yellow	Excellent resistance to physical breakage and osmotic shock fracture. Good silica removal ability. Mainly used in demineralization. Could also be used to adsorb. Gold from cyanide ore pulp. The correspondent OH-type resins are also available.			
D201OH	OH	≥3.8 (4.0)	≥1.00	55-65	0.63-0.70	1.05-1.08										
D201FC	Cl	≥3.7 (4.0)	≥1.20	50-60	0.65-0.73	1.06-1.10	0.45-1.25 mm ≥95	≥0.5	≤1.4							
D201SC	Cl	≥3.7 (4.0)	≥1.10	50-60	0.65-0.73	1.06-1.10										
D201MB	Cl	≥3.7 (4.0)	≥1.20	50-60	0.65-0.73	1.06-1.10	0.4-0.9 mm ≥95	0.5-0.8	≤1.4							
D201TR	Cl	≥3.7 (4.0)	≥1.20	50-60	0.65-0.73	1.06-1.10										
D202-II	Cl	≥3.6 (3.7)	≥1.20	47-57	0.68-0.74	1.07-1.12	0.315-1.25 mm ≥95	0.4-0.7	≤1.6		Cl → OH 15%		Macroporous type II strong anion resins. Excellent resistance to physical breakage, osmotic shock fractures. Very high working capacity in deionization. FC is for floating bed and SC is for bi-layered bed.			
D202-IIOH	OH	≥3.7 (3.8)	≥1.00	50-60	0.67-0.72	1.06-1.10										
D202-IIFC	Cl	≥3.5 (3.7)	≥1.20	47-57	0.68-0.74	1.07-1.12	0.45-1.25 mm ≥95	≥0.5	≤1.4							
D202-IISC	Cl	≥3.4 (3.7)	≥1.15	47-57	0.68-0.74	1.07-1.12										
D296	Cl	≥3.5	≥1.10	50-60	0.65-0.75	1.05-1.10	0.315-1.25 mm ≥95	0.4-0.7	≤1.6		Cl → OH 20%		High resistance to organic fouling. Mainly used as organic scavenger.			
DOC2001	Cl	≥3.8	≥0.80	55-65	0.63-0.73	1.03-1.08							Same as D296. Suitable for food processing.			
D208	Cl	≥3.5	≥0.55	70-85	0.60-0.70	1.04-1.08					Cl → OH 25%		Mainly used in separation and purification of Heparin.			

Poly(St-DVB) based macroporous type weak base anion exchange resins

Suqing	Ionic form	Mass capacity, meq/g	Volume capacity, meq/ml	Mois- ture, %	Bulk density, g/ml	Specific density, g/ml	Particle size, %	Effective diam- eter, mm	Unifor- mity coef- ficient	Whole beads after osmotic attrition	Max swelling rate	Color	Remarks							
D301	Freeamine	≥4.8	≥1.45	48-58	0.65-0.72	1.03-1.06	0.315-1.25 mm ≥95	0.4-0.7	≤1.6	≥90	OH → Cl 20%	White to light yellow	With superior me- chanical and osmotic strenght, good kinetic property and very high working capacity for demineralization. FC grade for floating bed and SC grade for double-layer bed.							
D301FC		≥4.8	≥1.45	48-58	0.65-0.72	1.03-1.06	0.45-1.25 mm ≥95	≥0.5												
D301SC		≥4.8	≥1.45	48-58	0.65-0.72	1.03-1.06	0.315-0.63 mm ≥95	0.35-0.5	≤1.4											
D301-F (D301-G)		≥4.8	≥1.40	50-60	0.65-0.72	1.03-1.06	0.315-1.25 mm ≥95	0.4-0.7	≤1.6		OH → Cl 25%		With high resistance to organic fouling, this resin is widely used in demineralization and discoloration of starch sweetener syrup and other organic solutions.							
D301-FD		≥4.7	≥1.40	50-60	0.65-0.72	1.03-1.09					With better discolor- ation effect than D301-G & -F, mainly used to remove acid and color from natural extracts or fermentation broth.									
D301-H		≥4.8	≥1.50	48-55	0.65-0.72	1.03-1.06					OH → Cl 20%		With higher capacity then D301.							
D306		≥4.8	≥1.60	48-53	0.63-0.73	1.03-1.09					OH → Cl 25%		With high oxidation resistance and high capacity. Combined with D001, D308 can be used to purify H2O2.							
D308		≥4.5	≥1.20	55-65	0.65-0.75	1.04-1.06					OH → Cl 45%		Light yellow to grey	D301-M	≥4.8	≥1.60	45-55	0.65-0.72	1.03-1.07	With only N(CH3)3 functional groups and no strong base, high capacity and excellent organic resistance, used for high quality Glucose treatment.
D309		≥7.0	≥1.60	60-70	0.65-0.72	1.03-1.06								With only primary amine groups and high organic fouling resistance, mainly used in adsorption and purification of Streptomycin and other aldehyde compounds.						
SQD-96		≥7.5	≥2.20	55-65	0.65-0.72	1.03-1.06								Polystyrene based polyethylene poly-amine type weak base anion exchange resin. With the advantages of the thermal and chemical stabilities of the polystyrene base resins and the advantages of the high capacity of the polyacrylate based resins, SQD-96 could be widely used in acid removal and heavy meal adsorptions.						
D320	Bi-functional	≥4.5	≥1.35	55-65	0.65-0.75	1.03-1.08	0.6-1.5 mm ≥95			OH → Cl 20%	White	With 20-30% strong base functional groups, D320 is of high Gold adsorption capacity and easy to be regenerated.								

Polyacrylate based gel and macroporous type strong base and weak base anion exchange resins

Suqing	Ionic form	Strong (weak) base capacity, meq/g	Volume capacity, meq/ml	Mois- ture, %	Bulk density, g/ml	Specific density, g/ml	Particle size, %	Effective diam- eter, mm	Unifor- mity coef- ficient	Whole beads after osmotic attrition	Color	Remarks
213		≥3.5 (≤1.0)	≥1.2	54-64	0.68-0.75	1.05-1.10	0.315-1.25 mm ≥95	0.4-0.7	≤1.6	≥90	Colorless	Clear gel-type. Excellent organic fouling resistance. Widely used in demineralization and discoloration.
213FC							0.45-1.25 mm ≥95	≥0.5				
D213			≥0.8	65-72	0.65-0.73	1.04-1.10	0.315-1.25 mm ≥95	0.4-0.7		(≥90)	White to light yellow	Macroporous type. Organic scavenger. Excellent organic fouling resistance. Widely used in discoloration.
D213FC							0.45-1.25 mm ≥95	≥0.5				
313	Free amine	(≥5.5)	≥1.4	55-65	0.65-0.75	1.04-1.10	0.315-1.25 mm ≥95	0.4-0.7	≤1.6	≥90	Colorless	Clear gel-type weak base. High resistance to organic fouling. Mainly used in the recycling treatment of water containing much organic substances.
316		(≥5.0)	≥1.6	50-60	0.65-0.75	1.02-1.12						
D311		(≥6.5)	≥2.0	48-58	0.65-0.75	1.10-1.16				(≥90)	White to light yellow	High capacity and excellent mechanical strenght. Mainly used in food and pharmaceutical industries for the removal for SO4(2-), Cl(-) and NO3(-), and adsorption and purification of citric acid and vitamin C.
D318		(≥6.5)	≥2.2	55-65	0.65-0.75	1.04-1.10						Capacity even higher than that of D318. Mainly used for L-lactic acid & other organic acid adsorption in fermentation industry.
D319		(≥8.5)	≥2.6	50-60	0.65-0.75	1.05-1.15						Specially designed for citric acid production by ion exchange procedures.
SQD-815		(≥5.3)	≥1.5	55-65	0.65-0.75	1.05-1.10						With high exchange capacity and high chemical stability, mainly used in hydrometallurgy to extract V and Mo. Also could be used in food and pharmaceutical industries to de-acidify.
SQD-816		(≥7.0)	≥2.2		0.65-0.75	1.05-1.12						With high exchange capacity and high chemical stability, mainly used in hydrometallurgy industry, especially for the extraction of tungsten.
SQD-817		(≥7.5)	≥1.7	62-72	0.65-0.75							

Epoxy and Phenolic based ion exchange resins

Suqing	Ionic form	Mass capacity, meq/g	Volume capacity, meq/ml	Moisture, %	Bulk density, g/ml	Specific density, g/ml	Particle size, %	Effective diameter, mm	Uniformity coefficient	Max swelling rate	Color	Remarks
SQ-338	Free amine	≥9.5		75-85	0.63-0.73	1.02-1.10	0.315-2.0 mm ≥95	0.4-1.0	≤2.0	OH → Cl 40%	Light yellow	Gel type epoxy based weak base anion exchange resin. With high organic fouling resistance and very high color adsorption capacity, widely used to remove acid and colors in food and pharmaceutical industries.
SQ-122	H	≥4.0	0.9	60-80	0.70-0.80	1.05-1.15				H → Na 60%	Light yellow to red brown	Phenolic based weak acid cation exchange resin. Widely used in discoloration and purification of streptomycin, terramycin, tetracycline and glutamate, sweetener syrups, etc.

Nuclear grade cation and anion exchange resins

Suqing	Ionic form	Mass capacity, meq/g	Volume capacity, meq/ml	Moisture, %	Bulk density, g/ml	Specific density, g/ml	Particle size, %	Color	Remarks
Nuclear grade cation exchange resins									
001X8NG	H	≥5.0	≥1.8	48-53	0.75-0.80	1.18-1.25	0.4-1.25	Blue grey	H conversion ≥ 99%, Na ≤ 50 ppm, heavy metals ≤ 50 ppm. The particle sizes could be customer-made.
001X8NG	NH4	≥4.5	≥2.0	45-50	0.78-0.85	1.25-1.30		Golden	Na ≤ 50 ppm, heavy metals ≤ 50 ppm. The particle sizes could be customer-made.
Nuclear grade anion exchange resins									
201X4NG	OH	≥3.7	≥1.0	55-65	0.65-0.72	1.04-1.09	0.4-1.25	Light yellow	OH conversion ≥ 95%, Cl ≤ 0.3%, CO3 ≤ 5%, SO4 ≤ 0.1% . The particle sizes could be customer-made.

Condensate polishing and system start-up ion exchange resins

Suqing	Ionic form	Mass capacity, meq/g	Volume capacity, meq/ml	Moisture, %	Bulk density, g/ml	Specific density, g/ml	Particle size, %	Effective diameter, mm	Uniformity coefficient	(Enforced) Whole beads after osmotic attrition %	Color	Remarks
Condensate polishing ion exchange resins												
D003NJ	Na	≥4.4	≥1.9	40-50	0.79-0.85	1.23-1.30	0.65-0.85 mm ≥95 (or) 0.70-0.90 mm ≥95	0.68-0.78	≤1.2	(≥90)	Dark grey	Specially designed for condensate polishing. Excellent resistance to physical breakage, osmotic shock fracture and oxidation. The flow rate could be up to 120 m/h.
D203NJ	Cl	≥3.6	≥1.4	42-50	0.66-0.75	1.06-1.11	0.45-0.65 mm ≥95 (or) 0.50-0.70 mm ≥95	0.5-			White	
Condensate polishing ion exchange resins												
D003NJ(MB)	Na	≥4.4	≥1.8	40-50	0.78-0.85	1.25-1.28	0.63-1.25 mm ≥95	0.7-1.0	1.4		Grey	Special resins for the condensate system start-up in refineries, chemical plants, hydrometallurgy industries and the power plants of at least 300MW.
D203NJ(MB)	Cl	≥3.6	≥1.35	42-50	0.65-0.73	1.03-1.10	0.45-0.9 mm ≥95	0.5-0.7			White	
D001MBP	Na	≥4.4	≥1.8	45-50	0.78-0.85	1.25-1.28	0.63-1.25 mm ≥95	0.7-1.0			Grey	
D201MBP	Cl	≥3.7	≥1.2	50-60	0.65-0.73	1.06-1.10	0.4-0.8 mm ≥95	0.45-0.7			White	

Oil removal resins

Suqing	Moisture, %	Bulk density, g/ml	Specific density, g/ml	Particle size, %	Effective diameter, mm	Whole beads, %	Remarks
Condensate polishing ion exchange resins							
OA-01	40-50	0.75-0.85	1.22-1.32	0.4-1.25 mm ≥95	0.45-0.75	≥98	Specially designed for oil removal from refinery condensate containing oil. After treatment, the oil content could be lowered to less than 1 ppm from up to 100 ppm. The resin could be used continuously and regeneration is not necessary, so that the cost to treat the water would be very low.

Ready to use mixed-bed resins

Suqing	Ionic form	Volume capacity, meq/ml	Moisture, %	Bulk density, g/ml	Remarks
MBS 1	99% H(+) 90% OH(-)	0.6	50-60	0.71-0.74	001X7H 40% 201X7OH 60%
MBS 8		0.5		0.71-0.74	001X8H 40% 201X4OH 60%
MBS 10		0.5		0.72-0.76	001X7H 50% 201X7OH 50%
MBS 45		0.45		0.72-0.76	001X8H 50% 201X4OH 50%
MBS 55		0.55		0.72-0.76	001X8H 45% 201X7OH 55%
MBS 73		0.6		0.70-0.74	001X8H 33% 201X7OH 66%
MBS 74		0.6		0.71-0.74	001X8H 40% 201X7OH 60%
MBS 75		0.5		0.72-0.76	001X8H 50% 201X7OH 50%

Color changing ion exchange resins with indicators

Suqing	Color change	Remarks
SQ-600BS	Red (regenerated) → Yellow (exhausted)	Cation color changing resin. Other specs are same as those of 001X7H. Could be customer-made also.
SQ-601BS	Red (regenerated) → Blue (exhausted)	
SQ-700BS	Blue (regenerated) → Yellow (exhausted)	Anion color changing resin. Other specs are same as those of 201X7OH. Could be customer-made also
SQ-067BS	Blue (regenerated) → Yellow (exhausted)	Mixed color changing resin. Usually made from MBS-8. Could be customer-made also.
MBS-8NL		Inner cooling water treatment resins, specially used in 300MW cooling water treatment.

Catalyst resins

Suqing	Ionic form	Mass capacity, meq/g	Moisture, %	Bulk density, g/ml	Specific density, g/ml	Particle size, %	Whole beads (Attrition efficiency), %	Color	Remarks
002CR	H(+)	≥5.0	55-65	0.72-0.78	1.18-1.28	0.4-1.25 mm ≥95	≥98	Light yellow	Super-gel strong acid resin. With high activity, high selectivity and high mechanical strength. Used mainly for biophenol A preparation and ester synthesis or hydrolysis. Dry resin is also available (water retention 3-5%).
003CR		≥5.0	75-85	0.70-0.78	1.15-1.20				Used as esterification catalyst for synthesis of long C-chain esters, with high conversion rate and long life.
005CR		≥4.9	42-48	0.78-0.83	1.18-1.26			Golden yellow to light brown	Decomposing catalyst of methyl acetate and ethyl acetate etc.
D002		≥4.8	50-60	0.75-0.80	1.22-1.30		(≥90)	Grey	Used mainly for MTBE and TAME preparation. High catalytic activity, high selectivity, high mechanical strength, and very low leachables. Surfaces area 35-45 m ² /g, pore volume 0.3-0.4 ml/g, average pore diameter 20-50 nm. Dry resins also available (water retention 3-5%).
D002-II		≥3.0	45-55	0.78-0.88	1.28-1.35			Dark brown to black	Highly thermal stableness. Could be used at temperatures up to 180 C. Mainly used as catalyst in olefin hydration for alcohol production.
D002GH		≥5.2	50-60	0.77-0.85	1.22-1.30				Compared with D002, D002GH has higher capacity, so that it would be more thermally stable and more poisoning resistant.
D006		≥5.0	50-60	0.75-0.80	1.20-1.28			Grey	With very high catalytic activity and mechanical strength, D006 is mainly used as the catalyst in the synthesis or hydrolysis of ester, and the alkylation of phenol. Dry resin is also available (water retention 3-5%).
YJ-1			≤3	0.53-0.63				Grey to light brown	Used for the removal of aldehydes in ethylene glycol. Up to 90% of the aldehydes could be removed.

Ethylene glycol process of circulating water special resins

Suqing	Ionic form	Mass capacity, meq/g	Total capacity, meq/ml	Moisture, %	Bulk density, g/ml	Specific density, g/ml	Particle size, %	Effective diameter, mm	Uniformity coefficient	Whole beads after (attrition) osmotic attrition, %	Color	Remarks
SQD-61	H(+)	≥4.8	1.70	48-58	0.72-0.82	1.15-1.25	0.4-1.25 mm ≥95	0.4-0.7	≤1.6	≥90	Light grey to light brown	With superior mechanical strength and excellent resistance to organic fouling, SQD-61, combined with SQD-92, is used in the recycling water treatment in glycol and methylethyl ketone production.
SQD-72	Cl(-)	3.5	1.20	50-60	0.65-0.75	1.05-1.15	0.4-1.25 mm	0.5-0.7			White to light yellow	With superior mechanical strength and excellent resistance to organic fouling. Comparing with SQD-92, SQD-72 has a higher capacity to remove UV adsorbents. It could be used alone, or combined with SQD-61, for the recycling water treatment in glycol and methyl ethyl ketone production.
SQ-75	HSO ₃	≥3.7 (4.0)	≥1.10	50-60	0.66-0.71	1.06-1.10	0.4-1.25 mm ≥95	≥0.50			Colorless to light yellow	Mainly used for aldehyde removal from aqueous solutions, such as the recycling water in ethylene-glycol production.
SQD-92	OH(-) OH type	≥4.7	≥1.40	50-60	0.65-0.72	1.03-1.07	0.4-1.25 mm ≥95	0.4-0.7			Light yellow to grey	With superior mechanical strength and excellent resistance to organic fouling, SQD-61, combined with SQD-92, is used in the recycling water treatment in glycol and methylethyl ketone production.

Selective and chelating ion exchange resins

Suq-ing	Ionic form	Mass capacity, meq/g	Volume capacity, meq/ml	Mois-ture, %	Bulk density, g/ml	Specific density, g/ml	Particle size, %	Effective diam-eter, mm	Unifor-mity coef-ficient	Whole beads after osmotic attrition	Max swelling rate	Color	Remarks
D401	Na	1.95(Cu(2+))	0.6(Cu(2-))	52-58	0.72-0.78	1.15-1.25	0.315-1.25 mm ≥95	0.4-0.7	≤1.6	≥90	H → Na 40%	White	Macroporous iminodiacetate resin. Highly selective for multi-valence metals. D401 and D402 are similar, although they are made by different procedures.
D402	Na	1.95(Cu(2+))	0.6(Cu(2-))	52-58	0.72-0.78	1.15-1.25					H → Na 40%	Grey	
D402-II	Na	1.45(Ca(2+))	0.5(Ca(2+))	52-58	0.72-0.78	1.15-1.25					H → Na 40%	Grey	
D403	Free amine	2.7	0.9	52-60	0.70-0.76	1.08-1.18					OH → Cl 45%	White	With N-methylglucamine groups, highly selective and high capacity for Boron adsorption. D403-II has a higher capacity than that of D403, and the B content in the effluent is lower.
D405	H		0.8(Hg(2+))	45-50	0.72-0.78	1.02-1.08						Light yellow	With -SH groups, highly selective for various kinds of Mercury removal.
D405-II	Cl		1.0	52-60	0.65-0.77	1.03-1.10						White	Thiuronium resin. Precious metal adsorption.
D406	Al	1.5	0.5	50-55	0.72-0.80	1.15-1.25						Grey	Specific for F(-) removal.
SQ407	FeO(OH)		0.5	55-65	0.75-0.85	1.20-1.30						Brick red to brown	Specific for Arsenic removal. Mainly used in drinking water treatment.
D407	Cl	3.0	0.8	52-60	0.65-0.75	1.05-1.10						White	Specific for nitrate removal from fresh water.
D407-III	Cl	1.6	0.5	50-60	0.65-0.75	1.05-1.15							With higher selectivity for nitrate, could be used to remove nitrate from seawater.
D408		3.0		50-60	0.65-0.75	1.05-1.15	0.4-1.25	0.5-0.7		≥95		White	The complex amine groups make this resin have the similar alkalinity of the strong base anion exchange resins, and a very high thermal stability. Could be used for DI water production. Also could be used to adsorb Cyanide Gold complex anions with high capacity and easy to be eluted.
D409	Na	3.5-4.0		55-65	0.68-0.78	1.05-1.15	0.315-1.25 mm ≥95	0.4-0.7		≥90		Light yellow to grey	Adsorb Gallium from aqueous solution, especially from Bayer Liquor during Al2O3 production.
SQD-74					0.66-0.73	1.04-1.10						Selectively remove Fe(3+) from concentrated hydrochloric acid	
D411	Free amine		35gCu(2+)L	40-50	0.65-0.75	1.05-1.15	0.4-1.25	0.5-0.7					Grey

Adsorbent resins

Suqing	Surface area (m ² /g)	Average pore diameter (nm)	Pore volume (ml/g)	Moisture, %	Bulk density, g/ml	Specific density, g/ml	Particle size, %	Effective diameter, mm	Uniformity coefficient	Whole beads	Color	Remarks
DA201-A	350-450	10-11	1.1-1.2	50-60	0.65-0.70	1.03-1.07	0.315-1.25 mm ≥95	0.4-0.7	≤1.6	≥98	White	Non-polar adsorbent. Used mainly for enzyme adsorption and purification.
DA201-B	400-500	9-11	1.1-1.2	50-60	0.65-0.70	1.03-1.07						Non-polar adsorbent. Used mainly for Stevioside and other natural products adsorption and purification.
DA201-C	1200-1400	3-4	1.1-1.2	50-60	0.68-0.75	1.03-1.10					Brown	Macronet non-polar adsorbent. Used mainly for adsorption of phenolic and other aromatic compounds from wastewater.
DA201-CII	1000-1300	3-5	1.3-1.5	60-70	0.65-0.75	1.03-1.10						Non-polar adsorbent resin. Mainly used for discoloration of fruit juice.
DA201-D	500-600	8-10	1.3-1.6	62-72	0.62-0.72	1.02-1.07					White	Non-polar adsorbent resin. Used for fruit juice discoloration and easy to be regenerated. Used also for B12 adsorption and pre-treatment of CPC mother liquid.
DA201-DII	400-500	8-10	1.0-1.2	60-70	0.62-0.72	1.02-1.07						
DA201-E	≥1100	6-8	1.5-1.8	60-70	0.63-0.73	1.03-1.10					Light yellow	Macronet non-polar adsorbent with high surface area and high adsorption capacity. Widely used adsorption and purification of natural products. When used to adsorb and refine Cephalothin C, the particle sizes should be in 0.25-0.85 mm.
DA201-G	≥350	5-7	0.9-1.1	50-60	0.72-0.82	1.15-1.25					White	Brominated adsorbent. Used to adsorb compounds with functional groups which are able to be polarized.
DA201-H	≥800	6-8	1.5-1.8	55-65	0.65-0.70	1.02-1.07						High surface area non-polar adsorbent. Used to adsorb, separate antibiotic and stevioside, etc.
DA201-M	≥400	6-8	0.8-1.1	55-65	0.68-0.75	1.10-1.20						Middle-polar adsorbent. Could be used to adsorb non-polar chemicals from aqueous solutions or to adsorb polar chemicals from non-polar solutions.
DA201-M8	≥450	6-8	0.7-1.0	55-65	0.65-0.70	1.02-1.07						Weak-polar adsorbent. Used to adsorb and purify stevioside with very high selectivity.

Resins used as media of chromatographic separations

Suqing	Ionic form	Mass capacity, meg/g	Moisture, %	Bulk density, g/ml	Particle size, %	Remarks
Ion exchange resins used as chromatographic media						
DTF-01	Ca	5.0 (H(+))	45-55	0.75-0.85	0.2-0.4 mm ≥95	Ca-type resin, used mainly as chromatographic media in separation of fructose and glucose, or sorbitol and mannitol, etc.
DTF-02	H, Na, K		55-65	0.70-0.80		Used as chromatographic media in the separation of monosaccharides and oligosaccharides, etc.
DTF-03	Cl	3.8	45-60	0.68-0.72		Used as retardant chromatographic media in waste acid recovery.

Suqing	Surface area (m ² /g)	Average pore diameter (nm)	Pore volume (ml/g)	Moisture, %	Bulk density, g/ml	Specific density, g/ml	Particle size, %	Medium particle size (μm)	Whole beads	Color	Remarks
Adsorbent resins used as chromatographic media											
CX-01	≥800	6-8	1.5-1.7	55-65	0.65-0.70	1.02-1.07	20-71	30-40	≥98	White	Used as the stationary phase of the reverse-phase chromatographic separations of raw drug materials containing active pharmaceutical ingredients.