



Typical Properties

RECOMMENDED RESINS

Common Contaminants	Applications	Recommended Resins
Aluminum	Potable Water, Alodining, Phosphoric Acid	CGS, CG8, CG10-H, SACMP-H
Amines	Neutral Water, Amine Solutions, Condensate	CG8, CG10, CG8-H, CG10-H, SBG1-OH, SBG2-OH
Ammonia	Neutral Water, Condensate	SIR-600, CG8, CG10, CG8-H, CG10-H, WACMP, SACMP-H
Antimony (Antimonate)	Borated Water	ASM-125, ASM-125-OH, BSM-50
Arsenic	Potable Water	ASM-10-HP, SBG2-HP, SBG1-HP
Barium	Potable Water	CGS, CG8, CG10, WACG-Na
Bicarbonate Alkalinity	Potable Water, Boiler Feedwater	SBG2, SBG1
Boron (Borate)	Potable or Groundwater	SIR-150, MBD-10, SBG2, BSM-50
Bromine	Potable Water, DBP	SBG1, SBG2, SBMP1, SIR-100-HP, SIR-110-HP
Cadmium	Plating Rinses, Groundwater	SIR-300, WACMP-Na, CG10
Calcium	Potable Water, Brackish, Produced Water	CGS, CG8, CG10, WACMP
Carbon Dioxide	Gas	SBG2-OH, SBG1-OH, SBMP1-OH, SBACR-OH
Carbonate	High pH Solutions	SBG2, SBG1, WACMP, CG8-H
Cesium	Potable Water, Groundwater	SIR-600, CG8, CG8-H
Chlorine/Chloramine	Potable Water	AGC -CS
Chromate (Hexavalent)	Potable/Groundwater	SIR-700-HP, SBG2-HP, SBG1-HP
Chromium (Trichrome)	Potable Water, Wastewater, Plating Baths Purification	CGS, CG8, WACG-Na, SIR-300, SIR-1000
Cobalt	Reactor Water, Wastewater	CG8-H, CG10-H, SIR-300, SIR-1000
Copper	Potable Water, Chloride Brines	CGS, CG8, WACMP, SIR-300, SBG1, SBG2, WBMP
Fluoride	Potable Water	SIR-900, SBG2-HP
Gadolinium (Gadolinium Sulfate)	Reactor Water	CG8, CG10, SACMP
Gallium (Arsenide)	Seimiconductor Waste	ASM-10-HP
Gold (Chloride or Cyanide)	Plating Rinse Water	SIR-200, SIR-400, SBG1-OH, SBG1, SBG2-OH, SBG2
Hardness	Potable Water	CGS, CG8, CG10
Hardness	High TDS Brine	SIR-500, SIR-300
Heavy Metals	Wastewater	SIR-300, WACG-Na, WACMP-Na, CG8
Iodine	General Properties	SBG1, SBG2, SIR-110-HP
Iron	Potable Water	SIR-1300, CGS, CG8, CG10
Lead	Potable Water, Wastewater	CGS, CG8, CG10, WACG
Lithium	Water	CG8-H, CG10-H
Magnesium	Potable Water	CGS, CG8, CG10
Manganese	Potable Water	SIR-1300, CGS, CG8, CG10

NOTE: This document is not designed to represent a complete list of contaminants or products. It is merely offered as a list of the most frequently encountered contaminants and products most often requested by customers.

Common Contaminants	Applications	Recommended Resins
Mercury	Wastewater	SIR-200, SIR-400, SIR-300
Molybdenum (Molybdate)	Cooling Water	SBG1, SBG1P, SBG2, SBMP1
Nickel	Wastewater, Plating Rinse Water	CG8, CG8-H, CG10-H, SIR-300
Nitrate	Potable or Groundwater	SIR-100-HP, SBG2-HP, SBG1-HP, SIR-110-HP
Organics	Potable Water	SBACR-MP-HP, SBACR-HP, SIR-22P-HP, SBMP1, AGC
Oxygen	Ultrapure Water	SIR-800
Palladium	Plating Wastewater	CG8, CG10, SBG1, SBG1P, SBG2, SIR-400
Perchlorate	Potable or Groundwater	SIR-110-HP, SIR-100-HP
PFAS/PFCs	Potable or groundwater	SIR-110-HP, AGC-PFx
Phosphate	Soft or Hard Water	SBG1P, SBACR
Platinum	Electroplating, Plating Wastewater	SBG1, SBG1P, SBMP1, SIR-400
Plutonium	Wastewater	SACMP, CG10
Potassium	Potable Water	CG8, CG10, SIR-600
Precious metals	Plating Wastewater	SIR-400
Radium	Potable or Groundwater	RSM-50, RSM-25, CG8, CG10
Rhodium	Plating Wastewater	SIR-400
Selenium (Selenate)	Potable or Groundwater	SBG1, SBG1P, SBG2
Silica	Neutral Water, Borated Waters	ASM-10-HP, SBG1-OH, SBG1P-OH, SBG2-OH, BSM-50, ASM-125
Silver	Plating Rinse Water, Photo Waste	SBG1, SBG2, SBG1-OH, SBG2-OH
Sodium	Demineralization, Potable Water	CG8-H, CG10-H, SACMP-H, CG8-K
Strontium	Potable or Groundwater	CG8, CG10, SACMP
Tannins	Potable or Groundwater	SBACR-MP-HP, SBACR-HP, SIR-22P-HP, SBMP1
Technitium (Pertechnetate)	Pertechnetate	SIR-110-HP
Thallium	General Properties	CG8, CG10, SACMP
Thorium	General Properties	CG8, CG10, SACMP
Tungsten (Tungstate)	Wastewater	SBG1, SBG1P, SBG2, SBMP1
Uranium (Carbonate)	Potable/Groundwater	SBG2-HP, SBG1-HP, SBG1P-HP, SIR-1200
Vanadium (Vanadate)	Potable Water	ASM-10-HP, SBG1, SBG2, SIR-700
Zinc	Wastewater	CG8, SIR-300, SBG1, SBG2
Zirconium (Zirconate)	Wastewater	SBG1, SBG2

IMPORTANT: Contact your ResinTech Technical Representative for assistance in choosing the proper resin or carbon. Information needed for media selection includes an analysis of the bulk ions present in the influent solution [pH, TDS or Conductivity, Hardness (calcium and magnesium), Sodium, Sulfate, Nitrate, Chloride, Alkalinity, Silica]

NAMING CONVENTION

ResinTech CATION and ANION resins follow a simple naming convention that allows you to easily understand the type of polymer and unique physical characteristics of each resin. The following abbreviations are provided to assist you in interpreting that naming convention.

Code	Attribute	Code	Attribute	Code	Attribute	Code	Attribute	Code	Attribute	Code	Attribute
C	Cation	G	Gel	1	Type I	Na	Sodium (default)	HP	High Purity	SIR	Selective Ion
SAC	Strong Acid Cation	ACR	Acrylic	2	Type 2	H	Hydrogen	UPS	Uniform Particle Size	ASM	Arsenic Selective
WAC	Weak Acid Cation	P	Porous	8	8% Crosslinked	OH	Hydroxide	C	Coarse Mesh	RSM	Radium Selective
SB	Strong Base	MP	Macroporous	10	10% Crosslinked	BL	Black (dark)	F	Fine Mesh	BSM	Borate Selective
WB	Weak Base	Asterisk (*) indicates product is WQA Gold Seal certified.						LTOC	Low TOC	MAG	Mixed Bed for EDM
MBD	Mixed Bed							ULTRA	Lowest TOC	IT	Inert

CATIONS

Product Name	Ionic Form	Capacity (meq/mL)	Retention (percent)	Ship. Wt. [†] (lbs/cu.ft)	Remarks
CGS*	Na	1.8	40 to 52	50	Residential grade resin suitable for general domestic softening
CGS-BL*	Na	1.8	40 to 52	50	Dark colored variant of CGS for color separation
CG8*	Na	2	42 to 49	51	8% cross-linked, industrial grade resin for deionization & softening
CG8-BL*	Na	2	42 to 49	51	Dark colored variant of CG8 for color separation
CG8-C*	Na	2	42 to 49	51	High durability coarse bead CG8 yields low pressure loss
CG8-F	Na	2	42 to 52	51	Reduced bead size CG8 intended for use when faster kinetics are required
CG10	Na	2.2	39 to 45	53	10% cross-linked, premium grade industrial resin for high physical & chemical durability
CG10-BL	Na	2.2	39 to 45	53	Dark colored variant of CG8 for color separation
SACMP*	Na	1.8	45 to 55	50	Macroporous resin designed to resist oxidative, thermal, and osmotic stress.
SACMP-CP	Na	1.8	45 to 55	50	Condensate polisher grade version of SACMP
WACG	H	4.2	43 to 60	48	Regenerable WAC intended for dealkalization & deionization.
WACG-HP*	H	4	43 to 60	47	High purity, pH buffered WACG intended for cartridge & potable water applications
WACMP	H	4	43 to 60	47	Regenerable, stress-resistant WAC for dealkalization & deionization, & metals removal

REGENERATED CATIONS

Product Name	Ionic Form	Capacity (meq/mL)	Retention (percent)	Ship. Wt. [†] (lbs/cu.ft)	Remarks
CG8-H-ID	H	1.8	43 to 58	50	Hydrogen form CG8 with an indicator dye that changes color as the resin exhausts
CG8-H	H	1.8	47 to 56	50	Hydrogen form CG8 for deionization and softening
CG8-H-BL	H	1.8	47 to 56	50	Dark colored CG8-H for mixed bed applications
CG10-H	H	2	44 to 52	51	Hydrogen form CG10 designed to resist oxidation & physical stress
CG10-H-BL	H	2	46 to 52	51	Hydrogen form CG10 dark colored for color separation
CG10-H-CP	H	2.15	44 to 52	51	Condensate polisher form of CG10-H for low pressure loss & good separation
CG16-H	H	2.4	44 to 52	52	Hydrogen form cation with exceptional capacity for radwaste & single use applications
SACMP-H	H	1.7	45 to 55	48	Hydrogen form macroporous resin for high operating temperatures and high selectivity
SACMP-H-CP	H	1.7	45 to 55	48	Condensate polisher grade of SACMP-H. Uniform size for low pressure loss & good separation
WACG-Na	Na	2	43 to 60	48	Sodium form version of WACG for dealkalization & deionization.
WACMP-Na	Na	2.2	43 to 60	46	Sodium form version of WACMP.

BARRIER MEDIA

Product Name	Ionic Form	Capacity (meq/mL)	Retention (percent)	Ship. Wt.† (lbs/cu.ft)	Remarks
IT-1	Inert	None	0 to 15	42	Intended for mixed bed demineralizers where a barrier layer of inert resin is desired.
IT-5	Inert	None	0 to 5	33	Specially sized inert granular media For use as a top layer in packed bed ion exchangers.

ANIONS

Product Name	Ionic Form	Capacity (meq/mL)	Retention (percent)	Ship. Wt.† (lbs/cu.ft)	Remarks
SBG1*	Cl	1.45	42 to 50	43	High capacity, low TOC leaching DI resin for removing various trace contaminants.
SBG1P*	Cl	1.3	51 to 60	42	High capacity, foulant resistant DI resin for removing various trace contaminants
SBG2*	Cl	1.35	50 to 52	44	High capacity, foulant resistant DI resin for trace contaminants. Highly regenerable.
SBMP1	Cl	1.15	50 to 63	41	Resists oxidation while providing good stability in the presence of physical & chemical stressors.
SBACR	Cl	1.25	55 to 63	44	Provides rapid removal and elution of organics and low fouling in surface waters.
SBACR-MP	Cl	1	63 to 70	44	Macroporous version of SBACR for highest possible removal of naturally occurring organics.
WBMP	Free Base	1.45	53 to 60	40	Intended for use in multiple bed demineralizers, resource recovery & waste treatment applications.
WBACR	Free Base	1.4	56 to 64	44	Intended for demineralization in single cycle exhaustions such as cartridges or waste treatment.
WBG30	Free Base	2.8	52 to 58	40	Intended for single use applications requiring the highest possible operating capacity.

REGENERATED ANIONS

Product Name	Ionic Form	Capacity (meq/mL)	Retention (percent)	Ship. Wt.† (lbs/cu.ft)	Remarks
SBG1P-OH	OH	1.05	NA**	41	SBG1P in the hydroxide form for applications requiring a hydroxide form anion.
SBG1P-OH-ID	OH	1	NA**	41	SBG1P-OH with color-indicating dye visual exhaustion indication.
SBG1P-OH-SC	OH	1.05	NA**	41	SBG1P-OH designed specifically for semi-conductor applications.
SBG1P-OH-LTOC	OH	1.05	NA**	41	SBG1P-OH designed for applications requiring high capacity & resistivity.
SBG1P-OH-ULTRA	OH	1.15	NA**	41	Ultra high grade SBG1P-OH for applications that require the highest possible purity
SBG1-OH	OH	1.15	NA**	42	Hydroxide form SBG1 intended for applications requiring a hydroxide form anion.
SBG1-OH-SC	OH	1.15	NA**	42	SBG1-OH designed specifically for semi-conductor applications.
SBG1-OH-CP	OH	1.05	NA**	42	Polisher grade version of SBG1-OH intended for deep bed condensate polishers.
SBG2-OH	OH	1.05	NA**	42	Hydroxide form SBG2 for applications where amine odors might be objectionable
SBMP1-OH	OH	0.9	NA**	40	Hydroxide form SBMP1 for use with high flow rate demineralizers.
SBMP1-OH-CP	OH	0.95	NA**	40	Polisher grade version of SBMP1 intended for deep bed condensate polishers.
WBMP-OH	OH/FB	1.3	53 to 60	40	Hydroxide version of WBMP for demineralization.

**Hydroxide form resins decompose at elevated temperatures and impede the moisture content from being reliably measured.

FILTERS & CARTRIDGES AVAILABLE

ResinTech media is pre-packaged into a complete line of filter cartridges for residential, commercial, and laboratory applications. Marketed under the **Aries Filterworks®** brand, there is a filter or cartridge designed to meet your need whether your goal is to remove specific contaminants, heavy metals, or simply correct taste and odor. Each product is WQA Gold Seal certified to adhere to the strictest drinking water standards. All products are lot traceable, available in the most common industry sizes, and always made in the U.S.A. For details, contact your representative.

† Weights reflect an average packout weight over time. Actual weights may vary by +/- 1 lb.

UNIFORM PARTICLE SIZE RESINS

Product Name	Ionic Form	Capacity (meq/mL)	Retention (percent)	Ship. Wt.† (lbs/cu.ft)	Remarks
CG8-UPS*	Na/H	2	42 to 49	51	Uniform particle size version of CG8 intended to reduce pressure loss.
CG8-BL-UPS	Na/H	2	42 to 49	51	Uniform particle size version of CG8-BL intended to reduce pressure loss.
CG10-UPS	Na	2.2	39 to 45	53	Uniform particle size version of CG10 intended to reduce pressure loss.
SBG1P-UPS	Cl	1.25	50 to 60	42	Uniform particle size version of SBG1P intended to reduce pressure loss.
SBG1-UPS	Cl	1.4	42 to 50	43	Uniform particle size version of SBG1 intended to reduce pressure loss.
SBG2-UPS	Cl	1.3	40 to 53	44	Uniform particle size version of SBG2 intended to reduce pressure loss.
SBMP1-UPS	Cl	1.2	56 to 60	41	Uniform particle size version of SBMP1 intended to reduce pressure loss.
SACMP-UPS	Cl	1.65	50 to 60	48	Uniform particle size version of SACMP intended to reduce pressure loss.

MIXED BEDS ION EXCHANGE RESINS

Product Name	Resin Pair (Cation/Anion)	Ionic Form	Capacity (meq/mL)	Retention (percent)	Ship. Wt.† (lbs/cu.ft)	Remarks
MAG-MB	CG8-H / SBG1P-OH	50% / 50%	0.45	50	43	Intended for EDM and other demineralizer applications where a light colored mixed bed is desired.
MBD-15	CG8-H-BL / SBG1P-OH	40% / 60%	0.55	40	43	For applications that require high operating capacity & excellent rinse up to high resistivity.
MBD-15-LTOC	CG8-H-BL / SBG1P-OH	40% / 60%	0.55	40	43	For mixed bed applications requiring TOC of no more than 10 ppb.
MBD-15-SC	CG8-H-BL / SBG1P-OH	40% / 60%	0.55	40	43	For mixed bed applications requiring TOC of no more than 50 ppb.
MBD-15-ULTRA	CG8-H-BL / SBG1P-OH	40% / 60%	0.55	40	43	For mixed bed applications requiring TOC of no more than 2 ppb.
MBD-NANO	CG8-H-BL / SBG1P-OH	40% / 60%	0.55	40	43	For E-1.1 water requiring TOC of no more than 2 ppb and metals certification.
MBD-20	CG10-H-BL / SBG2-OH	40% / 60%	0.6	42	44	For mixed bed applications where fishy odors would be objectionable.
MBD-30	CG8-H / SBG1P-OH-ID	50% / 50%	0.43	50	43	For single use mixed bed applications that require the highest possible operating capacity & color indicated exhaustion.

HYBRIDS

Product Name	Type	Ionic Form	Capacity (meq/mL)	Retention (percent)	Ship. Wt.† (lbs/cu.ft)	Remarks
ASM-10-HP*	Iron Impregnated Strong Base Anion Gel	Cl	1.4	35 to 50	49	Intended for arsenic removal from potable water.
ASM-125	Type I Strong Base Anion Gel	Cl	1.4	35 to 50	49	For removing trace levels of antimony and silica from process waters.
BSM-50	Type I Strong Base Anion Gel	BO3	1.4	35 to 50	51	For removing trace levels of antimony and silica from borated process water.
RSM-25*	Macroporous Strong Acid Cation	Na	1.8	45 to 55	49	Highly crosslinked resin intended for radium removal from potable water.
RSM-50	Macroporous Strong Acid Cation	Na	1.8	30 to 45	55+	Barium sulfate media for removal of radium from potable water.
SIR-1300	Catalytic resin, redox media spherical beads	N/A	N/A	48 to 58	43-46	For removal of dissolved iron, manganese, & hydrogen sulfide from water.

OFF-SITE REGENERATION SERVICES

For customers who do not have adequate regeneration capabilities in-house, ResinTech offers complete off-site regeneration services through its resource recovery division, **ACM Technologies**. ACM specializes in restoring exhausted resin to its proper ionic form for service. Regeneration reduces costs and ensures exhausted resin and contaminated wastewater are handled in a manner compliant with EPA regulations. For details, contact your representative.

SELECTIVE MEDIAS

Product Name	Type	Ionic Form	Capacity (meq/mL)	Retention (percent)	Ship. Wt.† (lbs/cu.ft)	Remarks
SIR-22P-HP	Type I Strong Base Very Porous Anion Gel	Cl	0.65	70 to 80	40	For removing naturally occurring organics from potable water.
SIR-100-HP	Strong Base Macroporous Anion	Cl	1.0	46 to 65	41	Highly regenerable. For removing nitrate from potable water.
SIR-110-HP*	Strong Base Anion	Cl	0.8	38 to 50	41	For removing perchlorate and PFOA, PFOS from potable water.
SIR-150	Weak Base Macroporous Anion	FB	0.8	46 to 60	39	For all borate removal from potable water, ultrapure water, & concentrated brines.
SIR-200	Weak Base Macroporous Anion	H	NA	38 to 48	44	For mercury removal and for removal/recovery of various precious metals.
SIR-300	Chelating Weak Base Macroporous Anion	Na	1.4	50 to 60	45	For removing low-moderate concentrations of heavy metals from process waste streams.
SIR-300-pH adj.	Chelating Weak Acid Macroporous Cation	Na	1.4	50 to 60	44	For removing low-moderate concentrations of heavy metals from process waste streams.
SIR-400	Chelating Weak Base Macroporous Anion	FB	2	35 to 50	44	For removing mercury and removing/recovering various precious metals.
SIR-500	Weak Acid Macroporous Cation	Na	1.7	50 to 70	41	For removing trace hardness from saturated brine & divalent metals from waste streams.
SIR-600	Zeolite Cation Exchanger	Na/K	0.6	0 to 10	60	For removing ammonia from potable water & cesium/radwastes from waste streams.
SIR-700*	Weak Base Anion	Acid Salt	2.1	52 to 58 (FB form)	40	For chromate removal from potable water.
SIR-800	Strong Base Anion	SO3	0.8	NA	43	For oxygen removal and other redox applications.
SIR-900	Crystalline Aluminum Oxide	None	NA	0 to 10	38	For removing fluoride, arsenate, selenate, and lead from potable water.
SIR-1000	Chelating Weak Base Macroporous Anion	HSO4	0.8	40 to 60	39	For use in process baths and rinse waters in metal finishing applications.
SIR-1200	Type I Strong Base Anion Gel	Cl	1.5	43 to 50	43	For removing radwaste, trace contaminants, & heavy metals in chemical processing.

CARBONS

Product Name	Type	Screen Size	Retention (percent)	Ship. Wt.† (lbs/cu.ft)	Remarks
AGC-30 D*	Coconut Shell	8x30 mesh	<5 or N/A	30	Dry, premium grade carbon with large pores and high capacity intended for high flow rates solids might clog finer mesh sizes.
AGC-30-AW*	Coconut Shell	8x30 mesh	20 to 30	38	Semi-moist, acid washed, dust-free version of AGC-30.
AGC-30-P65*	Coconut Shell	8x30 mesh	20 to 30	38	Prop 65 certified version of AGC-30-AW.
AGC-40 D*	Coconut Shell	12x40 mesh	<5 or N/A	30	Dry, premium grade carbon with large pores and high capacity intended for general purpose, high-efficiency applications.
AGC-40-AW*	Coconut Shell	12x40 mesh	20 to 30	38	Semi-moist, acid washed, dust-free version of AGC-40.
AGC-40-MG*	Coconut Shell	12x40 mesh	20 to 30	38	Batch certified, premium grade version of AGC-40-AW for use in medical applications. pH buffered and rinsed with sanitized water.
AGC-PFx	Coconut Shell	12x40 mesh	20 to 30	38	A special form of AGC-40-AW with chemically enhanced pore size to facilitate the removal of Per- and Polyfluoroalkyl compounds (PFC's) such as PFOS & PFOA.
AGC-50 D*	Coconut Shell	20x50 mesh	<5 or N/A	30	Dry, premium grade carbon with small pores & high capacity intended for applications where the highest possible surface area & adsorption rates are needed.

LABORATORY SERVICES

ResinTech® Lab Services houses one of the most sophisticated laboratories in the world for identifying and addressing water challenges. Our professional staff can perform a robust assessment of the health of your resin. Our state-of-the-art equipment can analyze your water or soil identify contaminants in even the most minuscule concentrations. Our proprietary **MIST-X®** software can run performance prediction scenarios that allow you to model the most efficient and cost-effective solution. For details, contact your representative.

† Weights reflect an average packout weight over time. Actual weights may vary by +/- 1 lb.



RESINTECH[®] INC.

INNOVATIONS IN ION EXCHANGE

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