

CATION EXCHANGERS

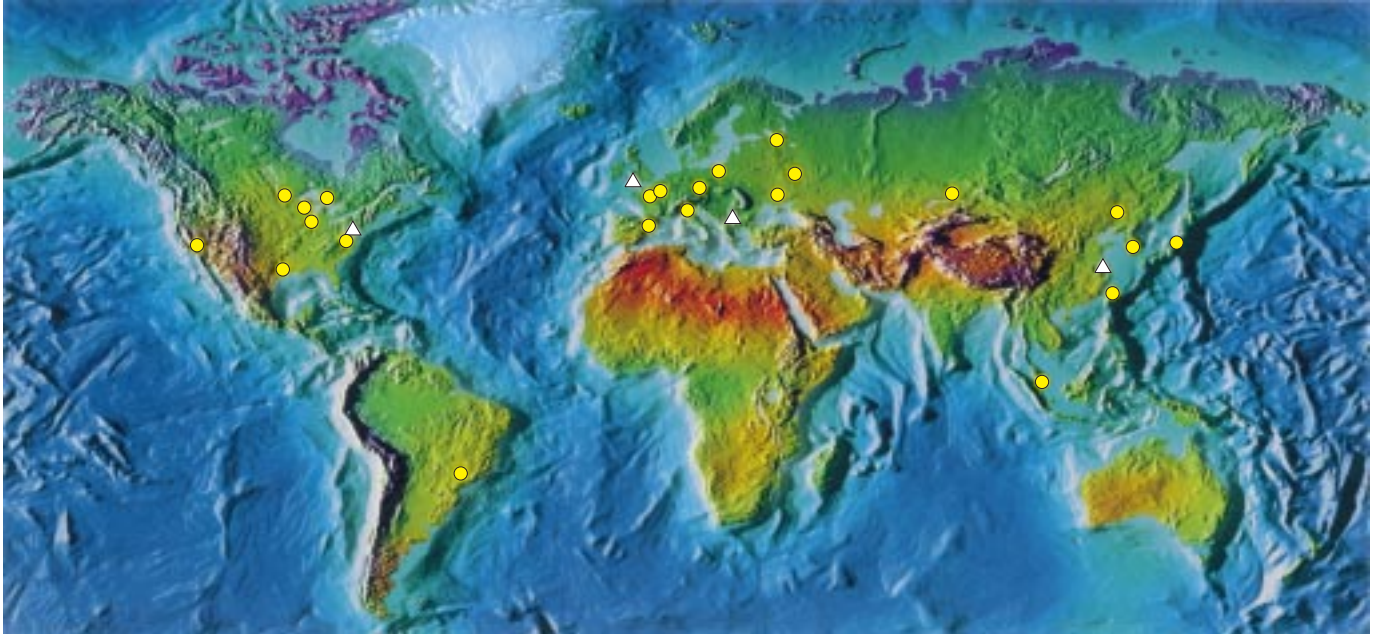
ANION EXCHANGERS

MIXED BEDS

NUCLEAR GRADE

SPECIAL PRODUCTS

Within the Purolite Corporation there are two companies, Purolite Co., U.S.A. and Purolite International Ltd with its' headquarters in the United Kingdom. Purolite commits 100% of its' total resources to the production, development and marketing of Ion Exchange resins and adsorbents.



Purolite has over 20 offices covering their international operations. Manufacturing operations in the U.S.A., Romania and China, provide world wide coverage, with Corporate offices in the UK and U.S.A. providing administrative support. Purolite has a range of over 500 products to satisfy the various demands of the market place.

The Research and Development Groups ensure that Purolite remains at the forefront of Ion Exchange Technology. Technical Service Laboratories at each of the manufacturing sites and Corporate offices provide a comprehensive testing service to clients through individual sales offices.

Strict Total Quality Management (TQM) standards are followed not only at the production centers, but also within the Sales centers and through every aspect of Marketing. All Purolite manufacturing facilities are ISO 9001/2000 certified and, additionally, Purolite has FDA approval for production of pharmaceutical products.

This summary provides a brief guide to a portion of the total Purolite products available. For more detailed information on any product please contact the relevant Purolite office.

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STRONG ACID CATION EXCHANGERS

PUROLITE	TYPE	IONIC FORM	TOTAL VOLUME CAPACITY MIN (eq/l)	SHIPPING WEIGHT APPROX. (g/l)	WATER RETENTION %	SPECIFIC GRAVITY MOIST BEADS	MAXIMUM SWELLING %	REMARKS
C100	Strong Acid Poly-styrene	Na ⁺	2.0	805-845	44-48	1.29	Na→H 8	Gel type standard. Resin with high capacity for softening and demineralisation.
C100 E	Strong Acid Poly-styrene	Na ⁺	1.9	800-840	46-50	1.27	Ca→Na 8 Na→H 10	Gel type, particularly for softening. Resin specially treated for domestic use and for industrial use where potable water is required.
C120 E	Strong Acid Poly-styrene	Na ⁺	1.6	760-800	56-60	1.20	Ca→Na 12	Gel type. Resin designed for softening, especially small scale domestic systems.
C100x10	Strong Acid Poly-styrene	Na ⁺	2.2	820-860	40-44	1.30	Na→H 6	Gel type with excellent resistance to oxidation. Gives particularly good separation from anion resin in mixed beds.
C150	Strong Acid Poly-styrene	Na ⁺	1.8	785-825	48-53	1.25	Na→H 4	Macroporous type with excellent resistance to attrition and osmotic shock. For treatment of condensates, continuous processes and special applications (galvanic plating, sugar).
C160	Strong Acid Poly-styrene	Na ⁺	2.3	820-860	35-40	1.30	Na→H 4	Macroporous type. Very highly crosslinked. High capacity. For special applications. Quenit process, treatment of industrial waste. Offers excellent resistance to oxidation.
SGC 100x10	Strong Acid Poly-styrene	Na ⁺	2.2	820-860	40-44	1.30	Na→H 6	Supergel grade. High flow rate condensate polishing, very high resistance to physical breakage and osmotic shock fracture.
SGC 650	Strong Acid Poly-styrene	H ⁺	2.0	770-790	46-50	1.21	Na→H 8	Supergel grade. Narrow size range (mean diameter 0.60 - 0.70mm) for high flowrate condensate polishing requiring fast kinetics.
SST 60	Strong Acid Poly-styrene	Na ⁺	1.7	780-820	38-46	1.20	Na→H 5-8	Premium gel softening resin utilizing shallow shell technology for higher salt efficiency and low hardness leakage.
SST 80	Strong Acid Poly-styrene	Na ⁺	1.9	800-840	42-49	1.24	Na→H 5-8	Shallow shell technology gel resin with higher shell to core ratio for high TDS softening applications. Ideally suited for oil field process water systems.

N.B. Above products also available in the H⁺ form.

WEAK ACID CATION EXCHANGERS

PUROLITE	TYPE	IONIC FORM	TOTAL VOLUME CAPACITY MIN (eq/l)	SHIPPING WEIGHT APPROX. (g/l)	WATER RETENTION %	SPECIFIC GRAVITY MOIST BEADS	MAXIMUM SWELLING %	REMARKS
C104	Weak Acid Poly-acrylic	H ⁺	4.2	735-770	45-55	1.18	H→Ca 20	High capacity gel type regenerable dealkalisation resin for use in industrial applications. This product has replaced C105.
C104E	Weak Acid Poly-acrylic	H ⁺	4.2	735-770	45-55	1.18	H→Ca 20	High capacity gel type regenerable dealkalisation resin for foods and potable water applications.
C106	Weak Acid Poly-acrylic	H ⁺	2.7	705-740	52-58	1.15	H→Ca 15 H→Na 50	Macroporous type with excellent resistance to osmotic shock, for special applications. Treatment of ammoniacal condensates, fixation of antibiotics.
C107E	Weak Acid Poly-acrylic	H ⁺	3.5	710-745	52-58	1.18	H→Ca 25	Macroporous non-regenerable dealkalisation resin for domestic appliances. Food grade.
C115E	Weak Acid Poly-methacrylic	H ⁺	3.5	710-745	46-53	1.13	H→Na 100	Very weakly acidic type for special applications (pharmaceutical, fixation of antibiotics). Suitable for CARIX process.

PARTICLE SIZE - CATION EXCHANGERS

PUROLITE GRADE	UNIFORMITY COEFFICIENT MAXIMUM	MEAN SIZE (mm) TYPICAL	PRINCIPAL APPLICATIONS
PUROFINE Gel	1.2	0.52-0.62	High efficiency softening and demineralisation (water and process). Good kinetics and rinse properties.
PUROFINE Macroporous	1.2		
PUROPACK Gel	1.2	0.60-0.70	Counter flow packed bed system.
PUROPACK Macroporous	1.2		
STD	1.7	0.60-0.85	Standard quality.
MB/S/C	1.7	0.65-0.90	Mixed beds/Special applications.
TL Gel	1.3	0.65-0.80	Three component mixed bed (TRILITE).
TL Macroporous	1.3	0.90-1.10	Three component mixed bed (TRILITE).
DL Strong	1.4	0.85-1.00	Layered beds, lower layer (DOUBLITE).
DL Weak	1.4	0.50-0.70	Layered beds, upper layer (DOUBLITE).

Purolite grades FL, PL, CL, and G have been superseded by the introduction of Puropack.

Most Purolite Ion Exchange Resins can be supplied as Purofine and Puropack Grades.

STRONG BASE ANION EXCHANGERS

PUROLITE	TYPE	IONIC FORM	TOTAL VOLUME CAPACITY MIN (eq/l)	SHIPPING WEIGHT APPROX. (g/l)	WATER RETENTION %	SPECIFIC GRAVITY MOIST BEADS	MAXIMUM REVERSIBLE SWELLING %	REMARKS
A400	Poly-styrene Type I	Cl ⁻	1.3	680-710	48-54	1.08	Cl→OH 20	Clear gel type. High operating capacity Good kinetics for demineralisation and high purity applications. Good silica removal.
A420S	Poly-styrene Type I	Cl ⁻	0.8	640-670	60-65	1.07	Cl→OH 20	Clear gel type. Good kinetics and colour removal from sugar syrups.
A600	Poly-styrene Type I	Cl ⁻	1.4	685-720	43-48	1.10	Cl→OH 20	Clear gel type. Good mechanical strength. Production of ultra pure water. Good silica removal.
SGA550	Poly-styrene Type I	SO ₄ ²⁻	1.4	670-700	55-65	1.07	Cl→OH 24	Clear gel type. Narrow grade (mean diameter 0.50-0.60mm) supergel base Type I anion resin for condensate polishing. Also available in OH ⁻ form.
A200	Poly-styrene Type II	Cl ⁻	1.3	680-710	45-51	1.08	Cl→OH 15	Clear gel type. Good kinetics and operating capacity. Good mechanical strength. For demineralisation, giving good silica removal in counter-flow regeneration.
A300	Poly-styrene Type II	Cl ⁻	1.4	685-720	40-45	1.10	Cl→OH 10	Clear gel type. High capacity for demineralisation of water. For floating beds.
A500	Poly-styrene Type I	Cl ⁻	1.15	670-700	53-58	1.08	Cl→OH 15	Macroporous type. Very good mechanical and osmotic resistance. For condensate treatment and continuous systems. Good silica removal.
A500 P	Poly-styrene Type I	Cl ⁻	0.8	640-670	63-70	1.07	Cl→OH 20	Macroporous type. Highly porous. For removal of organic matter. Decolorisation of sugar solutions.
A510	Poly-styrene Type II	Cl ⁻	1.2	660-690	44-51	1.08	Cl→OH 10	Macroporous type. High operating capacity. Excellent mechanical and osmotic strength. For demineralisation, fluidised beds and continuous systems.
A850	Poly-acrylic	Cl ⁻	1.25	680-710	57-62	1.09	Cl→OH 15	Clear gel type. Good mechanical resistance. Reversibly removes organics with good resistance to fouling. For demineralisation of water and sugar decolorisation.
A860	Poly-acrylic	Cl ⁻	0.8	680-715	66-72	1.08	Cl→OH 20	Macroporous type. Acrylic resin for decolorisation of organic solutions (sugar syrups). Organic scavenger.
A870	Poly-acrylic	FB/ Cl ⁻	1.35	675-705	57-62	1.04	Cl→OH 10	Dual functional gel. Weak base/Strong base. High capacity with good reversible resistance to organic fouling. For demineralisation of water.

WEAK BASE ANION EXCHANGERS

PUROLITE	TYPE	IONIC FORM	TOTAL VOLUME CAPACITY MIN (eq/l)	SHIPPING WEIGHT APPROX. (g/l)	WATER RETENTION (%)	SPECIFIC GRAVITY MOIST BEADS	MAXIMUM SWELLING %	REMARKS
A100	Poly-styrene	Free Base	1.3	645-675	53-60	1.04	Free base→Cl 20	Macroporous type. Resistant to organic fouling Good osmotic resistance. Resin optimised for demineralisation of water and saccharose.
A103S	Poly-styrene	Free Base	1.6	645-675	48-55	1.04	Free base→Cl 25	Macroporous type. High capacity for demineralisation/ decolorisation of glucose and other organic solutions. Also de-ash of milk whey.
A123S	Poly-styrene	Free Base	1.8	645-675	47-55	1.04	Free base→Cl 25	Macroporous type. Narrow particle size distribution, high capacity resin used primarily in sweetener deashing applications.
A830	Poly-acrylic	Free Base	2.7	690-725	47-53	1.10	Free base→Cl 20	Macroporous type. Special applications. Sulphate removal from sea water. Effluent neutralisation. Very high capacity.
A830W	Poly-acrylic	Free Base	2.7	690-725	47-53	1.10	Free base→Cl 20	Macroporous type. Acrylic weak base resin with exceptional operating capacity and bead toughness for water treatment applications.
A845	Poly-acrylic	Free Base	1.6	645-675	56-62	1.08	Free base→Cl 25	Gel type. Demineralisation of water high in organic matter, and of organic solutions (sugar juices, gelatine). High operational capacity.
A847	Poly-acrylic	Free Base	1.6	645-675	56-62	1.08	Free base→Cl 25	Gel type. Water treatment applications where low rinse volumes and high purity are required. May also be used for demineralisation of water in high organic matter.

PARTICLE SIZE - ANION EXCHANGERS

PUROLITE GRADE	UNIFORMITY COEFFICIENT MAXIMUM	MEAN SIZE (mm) TYPICAL	PRINCIPAL APPLICATIONS
PUROFINE Gel	1.2	0.52-0.62	High efficiency demineralisation. Good kinetics and rinse properties.
PUROFINE Macroporous	1.2		
PUROPACK Gel	1.2	0.60-0.70	Counter flow packed bed system.
PUROPACK Macroporous	1.2		
STD	1.7	0.60-0.85	Standard bead size.
MB/S/C	1.7	0.65-0.90	Mixed beds/Special applications.
TL	1.3	0.60-0.78	Three component mixed bed (TRILITE).
DL Strong	1.4	0.85-1.00	Layered beds, lower layer (DOUBLITE).
DL Weak	1.4	0.50-0.70	Layered beds, upper layer (DOUBLITE).

Purolite grades FL, PL, CL, and G have been superseded by the introduction of Puropack.

Most Purolite Ion Exchange Resins can be supplied as Purofine and Puropack Grades.

READY TO USE PUROLITE MIXED BEDS

PUROLITE	APPEARANCE	COMPONENT TYPE & PERCENTAGE	IONIC FORMS	SHIPPING WEIGHT APPROX. (g/l)	PARTICLE SIZE		USEFUL CAPACITY eq/l (g/l CaCO ₃)	APPLICATIONS
					mm	%		
MB 400	Without indicator	40% Strong acid Cation	H ⁺	705-740	>1.2	<5	Minimum 0.60 (30) for end point of 10 µS/cm	Production of demineralised water of high purity silica free. Conductivity attainable less than 0.1µS/cm. High operating capacity.
MB 400IND	Blue (regenerated) Amber (exhausted)	60% Strong base Anion Clear Gel Type I	OH ⁻		<0.3	<1		
MB 400QR	Colourless (regenerated) Red (exhausted)	40% Strong acid Cation 60% Strong base Gel Anion	H ⁺ OH ⁻	705-740	>1.2 <0.3	<5 <1	Minimum 0.64 (32) for end point of 10 µS/cm	Production of demineralised water of high purity silica free. Conductivity attainable less than 0.1µS/cm. High operating capacity.
MB 450VC	Green (regenerated) Blue (exhausted) (for relevant component resin beads)	40% Strong acid Cation 60% Strong base Macroporous Anion	H ⁺ OH ⁻	700-735	>1.2 <0.3	<5 <1	Minimum 0.60 (30) for end point of 10 µS/cm	Production of demineralised water of high purity silica free. Conductivity attainable less than 0.1µS/cm. High operating capacity.
MB 46/ MB 46LT	Without indicator	50% Strong acid Cation 50% Strong base Gel Anion	H ⁺ OH ⁻	730-765	>1.2 <0.3	<5 <1	Minimum 0.7 (35) for end point of 10 µS/cm	Specially suitable for EDM applications. High capacity.
MB 476LT	Without indicator	40% Strong acid Cation 60% Strong base Gel Anion	H ⁺ OH ⁻	690-730	>1.2 <0.3	<5 <1	Minimum 0.7 (35) for end point of 10 µS/cm	Non-regenerable. Cartridge application. Specially designed for EDM.
MB 59VC	Green (regenerated) Blue (exhausted)	60% Strong acid Cation 40% Weak base Anion	H ⁺ 95% FB	725-755	>1.2 <0.3	<5 <1	Minimum 0.60 (30) for end point of 10 µS/cm	Production of partially demineralised water (CO ₂ and SiO ₂ not eliminated). Capacity dependent upon % alkalinity in feed solution.

Purolite mixed bed components are typically generated to 99% H⁺ and 90% OH⁻.

RESINS FOR ULTRAPURE WATER PRODUCTION

Purolite supplies specialty Semiconductor (SC) and PICOPURE grade resins for the production of ultrapure water (UPW). These UPW products can be purchased as mixed beds or individual cation and anion components. The unique SC and PICOPURE processing allows the resins to achieve the highest levels of resistivity and lowest levels of TOC in minimal bed volumes of rinsing. Purolite SC and PICOPURE grade resins are manufactured by a proprietary process that results in ultra pure water production necessary for applications such as semiconductor chip manufacture, TFT/LCD production and other high-end processes.

For more information and specific product bulletins please contact your local Purolite Sales Office.

PUROLITE	TYPE	APPLICATION
PICOPURE 650C	SAC component	1° or Polishing MB's
PICOPURE 550A	SBA component	1° or Polishing MB's
PICOPURE 1200	1:1 Mixed Bed	Regenerable MB
PICOPURE 56	1:1 Mixed Bed	Non-Regenerable MB

CATION AND ANION EXCHANGERS

PUROLITE	TYPE	PUROLITE STANDARD EQUIVALENT	IONIC FORM	TOTAL CAPACITY MIN. (eq/l)	SHIPPING WEIGHT APPROX. (g/l)	MAXIMUM OPERATING TEMP. (°C)	PRINCIPAL APPLICATIONS
NRW 100	Strong Acid	C 100	H ⁺	1.8	760-790	120	Removal of cations including radioactive isotopes from aqueous solutions.
NRW 160	Strong Acid	C 160	H ⁺	2.2	780-800	120	Removal of cations including radioactive isotopes. Highly selective for Cesium 137.
NRW 400	Strong Base	A 400	OH ⁻	1.0	660-680	60	Production of ultra pure water for the semi conductor industry. To be used in conjunction with NRW 100.
NRW 505	Strong Base	A 500	OH ⁻	1.0	690-715	60	Removal of anions including boric acid and radioactive isotopes. Very good resistance to osmotic shock.
NRW 600	Strong Base	A 600	OH ⁻	1.0	680-710	60	High capacity for removal of anions from radioactive circuits. Good attrition resistance.

Particle size grading is closely controlled to give less than 5% over 1.2mm and less than 2% under 0.42mm

MIXED BEDS

PUROLITE	PUROLITE STANDARD EQUIVALENT	IONIC FORM	SHIPPING WEIGHT APPROX. (g/l)	MAXIMUM OPERATING TEMP. (°C)	PRINCIPAL APPLICATIONS
NRW35	C160/A600	H ⁺ /OH ⁻	720-745	60	Demineralisation and decontamination of radioactive elements. High selectivity for cesium removal (cooling ponds). Excellent resistance to osmotic shock and high capacity.
NRW 36	C100/A600	H ⁺ /OH ⁻	715-750	60	Demineralisation and decontamination of secondary cooling circuits/effluent. Excellent resistance to attrition. Also available in Li ⁺ and Li ⁷⁺ form.
NRW 37	C100/A400	H ⁺ /OH ⁻	705-740	60	Demineralisation and decontamination of secondary cooling circuits/effluent. Excellent resistance to attrition.
NRW 37 Li7	C100/A400	⁷ Li ⁺ /OH ⁻	730-750	60	Decontamination of pressurised water reactor (PWR) circuits.
NRW 37 Li	C100/A400	Li ⁺ /OH ⁻	730-750	60	Decontamination of pressurised water reactor (PWR) circuits.
NRW 40	C100/A500	H ⁺ /OH ⁻	710-730	60	Demineralisation and decontamination of radioactive effluents. Particularly resistant to both mechanical and osmotic shock.
NRW 354	C160/A500	H ⁺ /OH ⁻	730-750	60	Highly selective for Cesium 137 and radioactive colloids (cooling ponds, waste waters).
NRW 354 Li7	C160/A500	⁷ Li ⁺ /OH ⁻	730-750	60	Decontamination of pressurised water reactor (PWR) circuits.

PURITY OF NUCLEAR GRADE ION EXCHANGERS

CATION RESINS

IONIC FORM	
H ⁺	(99.9% min.)
Li ⁺ or Li ⁷⁺	(99.9% min.)

IMPURITIES	mg/dry kg
SODIUM	40 max.
IRON	50 max.
LEAD	30 max.
HEAVY METALS	40 max.

ANION RESINS

IONIC FORM	
OH ⁻	95.0% min.
CO ₃ ²⁻	5.0% max.
Cl ⁻	0.1% max.
SO ₄ ²⁻	0.3% max.

IMPURITIES	mg/dry kg
SODIUM	20 max.
IRON	100 max.
HEAVY METALS	30 max.

NOTES

Nuclear grade mixed beds are normally supplied with near stoichiometric equivalents of anion and cation resin sites. Other ratios can be supplied on request.

Relevant Nuclear Grade Products have been approved by numerous bodies globally, including EDF (France) and Ontario Power Generation (Canada). Products meeting General Electric or Westinghouse specifications are also available on request.

SPECIAL ION EXCHANGERS

PUROLITE	TYPE	FUNCTIONAL GROUPS	IONIC FORM	TOTAL VOLUME CAPACITY (eq/l)	SHIPPING WEIGHT APPROX. (g/l)	WATER RETENTION (%)	REMARKS
C100E Ag	Strong Acid	Sulphonic	Na ⁺	1.9	800-840	46-50	Silver impregnated resin for softening (with bacteriostatic properties).
A200 MB OH IND	Strong Base Anion	Quaternary Amine	OH ⁻	1.3 (Cl)	655-690	45-51	Indicator strong base anion for the neutralisation of acids from solutions or gases.
A400 MB OH IND	Strong Base Anion	Quaternary Amine	OH ⁻	1.3 (Cl)	665-695	48-54	Indicator strong base anion for the neutralisation of acids from solutions or gases.
A520E	Strong Base Anion	Quaternary Ammonium	Cl ⁻	0.9	675-705	50-56	Selectively removes nitrate in potable water.
A501P	Strong Base Anion	Quaternary Ammonium	Cl ⁻	0.6	590-610	70-75	Specially developed for the absorption of silica, organic complexes and metal based colloids. Can be used for the protection of membranes (RO and ultrafiltration).
OL 100	Oleophilic	Sulphonic	Na ⁺	2.0	840-860	44-48	Oil separation from water by coalescence.
S108	Boron Selective	Complex Amino	Cl ⁻	0.35(B)	655-690	52-58	To remove Boron selectively.
S910	Chelating	Amidoxime	FB	1.25(Cu)	710-745	52-60	Special metals selectivity at low pH.
S920	Chelating	Thio-uronium	H ⁺	2(Hg)	700-730	48-54	Selective removal of precious metals. Excellent selectivity and capacity for mercury removal. Non-regenerable.
S922	Chelating	Thio-uronium	H ⁺	2(Hg)	690-720	54-60	Selective removal of metals. Excellent selectivity and capacity for mercury removal. Regenerable.
S930	Chelating	Amino-Diacetic	Na ⁺	0.94(Cu)	710-745	55-65	Selective removal of polyvalent ions (including those of transition elements). Regenerable.
S940	Chelating	Amino-Phosphonic	Na ⁺	1.0(Ca)	710-745	55-65	Highly selective for metals of low atomic weight. Especially useful for decalcification of brine. (Ca ²⁺ , Mg ²⁺ , Sr ²⁺).
S950	Chelating	Amino-Phosphonic	Na ⁺	1.4(Cu)	710-745	60-65	For removal of metals from waste waters. For example in hydrometallurgy and galvanic plating industries.
S985	Chelating	Polyamine	FB	2.3	670-710	52-57	Special chelating resin with very strong complexing properties for transition metals.
PCR (Various)	Strong Acid	Sulphonic	Na ⁺ Ca ²⁺ K ⁺	1.4-2.0	810-840	Various according to ionic form	Chromatographic applications.
PCA (Various)	Strong Base	Quaternary Ammonium	Various	1.3	680-710	48-54	Ion retardation, Hydrometallurgy.

The capacity quoted refers to the capacity for removal of the metal specified, according to its valence.

PUROLITE	TYPE	SPECIAL FEATURES	REMARKS
MICROLITE	Strong acid cations, strong base anions, mixed beds.	Ready to use, single or premixed, powdered resins with and without fibers, for direct coating of filter elements.	Family of products for precoat filters, used in condensate treatment and radioactive contaminants removal.

SPECIAL PRODUCTS

PUROLITE	TYPE	SHIPPING WEIGHT APPROX. (g/l)	PARTICLE SIZE OR DIMENSIONS	PRINCIPAL APPLICATIONS
IP 1	Inert Polymer	540-560	2.5 - 4.0mm	Inert bead polymer for Packlite systems. To guard top distributors.
IP 4	Inert Polymer	520-550	1.2 - 1.5mm	Inert polymer in cylindrical form for upflow counter-current collection systems to prevent strainer blockage.
IP 3/7	Inert Polymer	680-710	mean 0.67 - 0.73mm	Inert polymer beads acting as an interface between cation and anion exchange resins in the TRILITE system.
IP 9	Inert Polymer	800-900	3.0 - 5.0mm	Inert polymer in cylindrical form for underbed applications.
AC 20	Activated Carbon Granules	470-490	0.4 - 1.4mm	Particularly useful for removal of chlorine from water. Treatment of potable water, in removal of organic contamination.
AC 20G	Activated Carbon Granules	470-490	0.6 - 2.4mm	Similar to AC20, but of larger granule size.
MZ 10	Manganese Zeolite	1300-1400	0.25 - 1.0mm	Removal of iron and manganese in potable and industrial waters. Regenerable with potassium permanganate.
CPM 7040	Cation Exchange Membrane	380-420 g/m ²	1000 x 3000mm	Heterogeneous cation permselective membrane for electro dialysis and anaphoresis. Other sizes available.
APM 7540	Anion Exchange Membrane	380-420 g/m ²	1000 x 3000mm	Heterogeneous anion permselective membrane for electro dialysis and cataphoresis. Other sizes available.

PHARMACEUTICAL PRODUCTS

PUROLITE	TYPE	APPLICATION
A430 MR	Cholestyramine	Treatment of Hypercholesterolemia through the reduction of free bile acids, to ultimately lower the cholesterol level in the blood.
A830 E MR	Polyamine	Antacid
C100 Na MR C100 Ca MR	Sodium polystyrenesulphonate Calcium polystyrenesulphonate	Treatment of Hyperpotassemia.
C108 DR	Polyacrylic acid	Drug carrier.
C115 EC	Polymethacrylic acid	Used to recover high molecular weight proteins as lysozyme and lactoferrin.
C115 H MR	Polymethacrylic acid	Slow release drug applications.
C115 K MR	Polacrilin potassium	High performance tablet disintegrant.
MN 200 DR	Hypersol-Macronet™	Blood purification
MN 500 DR	Hypersol-Macronet™	Blood purification

Other Ion Exchange Resins available for use in drug production

Production facility has F.D.A approval

Purolite supplies enhanced gel and macroporous ion exchange resin catalysts for a broad range of commercial processes including MTBE/TAME etherification, esterification, alkylation, etc. For catalysts having the specific physical and chemical properties required by the operating characteristics of your process, please contact the relevant Purolite office with your particular application or resin requirements.

PUROLITE	TYPE	APPLICATION
CTA 190	WBA	Acid neutralization
CT 122 / CT 124	SAC, low crosslink	Bis-phenol A
CT 151	SAC, medium crosslink	Alkylation reactions. Phenol Purification
CT 175	SAC, high crosslink	Etherification processes
CT 275	SAC, high crosslink, high activity	Etherification processes
CT 269	SAC, high crosslink	Phenol alkylation

HYPERMOL-MACRONET™ SORBENT RESINS

POROSITY GROUP Available functionalities** NAME*	GROUP I			GROUP II		GROUP III	
	WBA MN-100	non- MN-200	SAC MN-500	WBA MN-150	non- MN-250	WBA MN-170	non- MN-270
Surface area, m ² /g	800-1000			800-1000		1300-1500	
Pore volume, ml/g	1-1.1			0.6-0.8		0.7-0.8	
d ₅₀ micropores, Å	15			14		15	
d ₅₀ meso and macro-pores, Å	850-950			300-450		-	
Dry weight capacity, eq/kg	0.6-0.8	-	2.2-2.8	0.4-0.7	-	0.5-0.7	-
Volume capacity, eq/l	0.1-0.2	-	0.8-1.1	0.1-0.3	-	0.1-0.3	-
Moisture, wt%	55-60	54-59	52-57	51-56	53-57	51-56	52-57

* MN-XYZ: X = functionality [2 = non-functional (no acidity or basicity), 1 = WBA (amino), 5 = SAC (sulfonated)], YZ = porosity group.
 ** Custom functionalities can be made available, depending on specialized client needs.

MICROBEADS FOR CHROMATOGRAPHY

Purolite supplies a wide range of microbeads for chromatographic separation. Both Chromalite™ and Hypersol-Macronet™ are available, on request, in microbead form. Mean diameters of, for example, 5, 10, 30, 50, 100 and 200 microns are available in a choice of functionality, according to the separation application. All products are specially purified, and made to narrow size range specifications. The microbead Hypersol-Macronets™ are specially useful where separation by sorption properties control the chromatographic process. For further information, please contact the relevant Purolite office with your particular application or resin requirements.

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The Purolite Company and Purolite International Limited have one of the most complete ranges of ion exchange resins worldwide. For further information please contact your local Purolite office.

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