DUPONT™

Ion Exchange

Pressurized Water Reactor

Condensate Polisher

Condensate polishers protect critical steam generator components from potential condenser leaks, thereby improving plant reliability. Our ion exchange resins have been the backbone of condensate polishing systems throughout the world for decades. Depending on the chemistry used in the steam generator feed water, the right resin combination will help provide the optimum performance in terms of treated condensate purity and cycle run length.

PRODUCT	AMINE	CATION PRE-BED	FEATURES AND RECOMMENDED USES	TYPE	MATRIX	TOTAL VOLUME CAPACITY (eq/L, min)	IONIC FORM AS SHIPPED
DuPont™ AmberLite™ HPR550 OH	NH_4/ Organic Amine	N/A	By far the most common resin combination used worldwide for pressurized water reactor condensate polishing applications. This pairing offers the best balance of properties: high-capacity gel type resins, uniform particle size, and high physical stability. AmberLite™ HPR650 H Resin is also an excellent choice for cation pre-beds required to handle NH_4/ amine load.	SBA	GEL	1.10	OH-
DuPont™ AmberLite™ HPR650 H		Yes		SAC	GEL	2.00	H+
DuPont™ AmberLite™ HPR550 OH	NH_4/ Organic Amine	N/A	Pairing that offers one of the highest NH_4/ amine capacities with good anion protection, allowing enhanced pH for better FAC control. AmberLite™ HPR1600 H Resin provides high NH_4/amine capacity for cation pre-beds.	SBA	GEL	1.10	OH-
DuPont™ AmberLite™ HPR1600 H		Yes		SAC	GEL	2.40	H+
DuPont™ AmberLite™ HPR9000 OH	NH_4/ Organic Amine	N/A	Pairing that offers high NH_4/amine capacity with good anion protection. AmberLite™ HPR1600 H Resin provides high NH_4/amine capacity for cation pre-beds. The use of a macroporous anion resin provides excellent resistance to surface fouling and kinetic impairment.	SBA	MACRO	0.80	OH-
DuPont™ AmberLite™ HPR1600 H		Yes		SAC	GEL	2.40	H+
DuPont™ AmberLite™ HPR9000 OH	ETA	N/A	The only ion exchange resin pair shown to mitigate ETA chemistry related anion resin kinetic impairment. Designed specifically for use with ETA chemistry.	SBA	MACRO	0.80	OH-
DuPont™ AmberLite™ HPR1400 H		No		SAC	GEL	2.00	H+
DuPont™ AmberLite™ HPR9000 OH	Organic Amines	N/A	Pairing that offers high Na selectivity for operation past amine break. The use of a macroporous anion resin provides excellent resistance to surface fouling and kinetic impairment.	SBA	MACRO	0.80	OH-
DuPont™ AmberLite™ HPR2000 H		No		SAC	MACRO	1.70	H+
DuPont™ AmberLite™ IRN360 H/OH	Non Regener-able Start-up	N/A	Ready to use gel type mixed bed composed of 2/3 of high-capacity UPS cation resin AmberLite™ IRN97 H and 1/3 IRN78 OH Resins on a volume basis. High cation dosage volume allows high maximum exchange capacity when cation species are dominant (alkaline pH), in all PWR applications.	MB	GEL/GEL	2.10/1.20	H+/OH-
DuPont™ AmberLite™ 600i	Layer Separation	N/A	Inert interface separator compatible with all PWR condensate polishing resin pairs.	Inert	GEL	N/A	N/A

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Key:

CPP = Condensate Polishing Plant
RWCU = Reactor Water Clean Up
SBA = Strong Base Anion
SAC = Strong Acid Cation
MB = Mixed Bed

Powering performance worldwide.

With a large global manufacturing footprint, strong R&D expertise and technical support services and systems, we supply high market volumes with high quality. DuPont partners with you, our customer, to understand unmet needs and develop tailored solutions.

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Have a question? Contact us at:

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