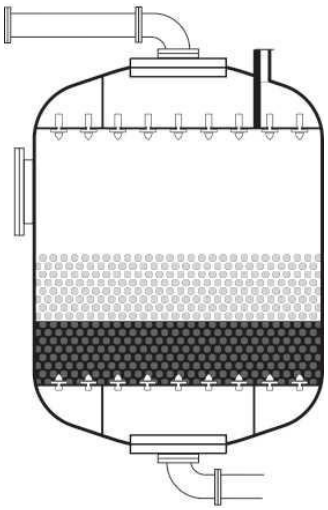
AmberLite™ Ion Exchange Resins for Regenerable Working or Polishing Mixed Beds

Water Treatment for Industrial and Power Markets

Key benefits of a mixed resin beds include:

- High quality of water effluent
- Ease of operation
- Lower capital cost



Mixed beds are primarily used for polishing demineralized water. The mixed bed produces very high purity water from a single unit that contains cation and anion resin in an intimate mixture. This intimate mixture of resin minimizes sodium leakage because the dilute acid formed in cation exchange process is immediately neutralized by the anion resin. Care must be taken in choosing the right ion exchange resin for mixed beds as the concept is made possible by the density and particle size differences between the resins used. Upon exhaustion, the mixed bed must be backwash separated into distinct layers prior to regeneration. In order for the full advantages of a mixed bed to be realized, good resin separation is imperative. The following resin pairs have been engineered for maximum resin separability.

Recommended AmberLite™ Ion Exchange Resin Pairs for Mixed Bed	AmberLite™ HPR650 H	AmberLite™ HPR1300 H	AmberLite™ HPR1200 H	AmberLite™ HPR2800 H	AmberLite™ HPR252 H	AmberLite™ HPR2900 H
DuPont™ AmberLite™ HPR550 OH	P					
DuPont™ AmberLite™ HPR4700 OH		P				
DuPont™ AmberLite™ HPR4200 OH		P	P			
DuPont™ AmberLite™ HPR4800 OH		P	P			
DuPont™ AmberLite™ HPR9000 OH	P			P		
DuPont™ AmberLite™ HPR900 OH		P		P	P	
DuPont™ AmberLite™ HPR9200 Cl		A		A		A

P = Promoted A = Acceptable

Inert buffer beads are not necessary with these recommended resin pairs as the resins are tailored for maximum separability. If the use of buffer beads is preferred for certain systems, the recommended product is AmberLite™ 600BB.
For the anion resins listed in OH form, either Cl or SO_4 form is available if preferred by the user. Please refer to the product data sheets for detailed availability. For cation resins listed in the H- form, Na- form is available if preferred by the user. However, Na- form resins are never recommended in mixed bed operations.

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