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.

### Pressurized Water Reactor Condensate Polisher Product Recommendation

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<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>AMINE</th>
<th>CATION PRE-BED</th>
<th>FEATURES AND RECOMMENDED USES</th>
<th>TYPE</th>
<th>MATRIX</th>
<th>TOTAL VOLUME CAPACITY (eq/L min)</th>
<th>IONIC FORM AS SHIPPED</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMBERLITE™ HPR550 OH</td>
<td>NH₄/ Organic Amine</td>
<td>N/A</td>
<td>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</td>
<td>SBA</td>
<td>GEL</td>
<td>110</td>
<td>OH</td>
</tr>
<tr>
<td>AMBERLITE™ HPR650 H</td>
<td>N/A</td>
<td>Yes</td>
<td></td>
<td>SAC</td>
<td>GEL</td>
<td>2.00</td>
<td>H⁺</td>
</tr>
<tr>
<td>AMBERLITE™ HPR550 OH</td>
<td>NH₄/ Organic Amine</td>
<td>N/A</td>
<td>Pairing that offers you one of the highest NH₄/amine capacity with good anion protection, allowing enhanced pH for better FAC control. AMBERLITE™ HPR1600 H Resin provides high NH₄/amine capacity for cation pre-bed.</td>
<td>SBA</td>
<td>GEL</td>
<td>110</td>
<td>OH</td>
</tr>
<tr>
<td>AMBERLITE™ HPR1600 H</td>
<td>N/A</td>
<td>Yes</td>
<td></td>
<td>SAC</td>
<td>GEL</td>
<td>2.40</td>
<td>H⁺</td>
</tr>
<tr>
<td>AMBERLITE™ HPR9000 OH</td>
<td>NH₄/ Organic Amine</td>
<td>N/A</td>
<td>Pairing that offers you high NH₄/amine capacity with good anion protection. AMBERLITE™ HPR1600 H Resin provides high NH₄/amine capacity for cation pre-bed. The use of a macroporous anion resin provides excellent resistance to surface fouling and kinetic impairment.</td>
<td>SBA</td>
<td>MACRO</td>
<td>0.80</td>
<td>OH</td>
</tr>
<tr>
<td>AMBERLITE™ HPR1600 H</td>
<td>N/A</td>
<td>Yes</td>
<td></td>
<td>SAC</td>
<td>GEL</td>
<td>2.40</td>
<td>H⁺</td>
</tr>
<tr>
<td>AMBERLITE™ HPR9000 OH</td>
<td>ETA</td>
<td>N/A</td>
<td>The only ion exchange resin pair shown to mitigate ETA chemistry related anion resin kinetic impairment. Designed specifically for use with ETA chemistry.</td>
<td>SBA</td>
<td>MACRO</td>
<td>0.80</td>
<td>OH</td>
</tr>
<tr>
<td>AMBERLITE™ HPR1400 H</td>
<td>N/A</td>
<td>No</td>
<td></td>
<td>SAC</td>
<td>GEL</td>
<td>2.00</td>
<td>H⁺</td>
</tr>
<tr>
<td>AMBERLITE™ HPR9000 OH</td>
<td>Organic Amines</td>
<td>N/A</td>
<td>Pairing that offers you high Na selectivity for operation past amine break. The use of a macro porous anion resin provides excellent resistance to surface fouling and kinetic impairment.</td>
<td>SBA</td>
<td>MACRO</td>
<td>0.80</td>
<td>OH</td>
</tr>
<tr>
<td>AMBERLITE™ HPR2000 H</td>
<td>Non Regenable Start-up</td>
<td>N/A</td>
<td></td>
<td>SAC</td>
<td>MACRO</td>
<td>1.70</td>
<td>H⁺</td>
</tr>
<tr>
<td>AMBERLITE™ IRN360 H/OH</td>
<td>N/A</td>
<td>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.</td>
<td>MB</td>
<td>GEL/GEL</td>
<td>2.10/120</td>
<td>H⁺/OH</td>
<td></td>
</tr>
<tr>
<td>AMBERLITE™ 600i</td>
<td>Layer Separation</td>
<td>N/A</td>
<td>Inert interface separator compatible with all PWR condensate polishing resin pairs.</td>
<td>Inert</td>
<td>GEL</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Key:**

- SBA = Strong Base Anion
- SAC = Strong Acid Cation
- MB = Mixed Bed
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- Mumbai, India
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* Global Water Technology Center

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