



WATER TREATMENT AT POWER PLANT

# Stator Cooling Circuit Product Recommendations

The stator cooling circuit requires careful control of its chemistry (pH, dissolved oxygen, dissolved copper) in order to provide efficient cooling, little corrosion, and no deposition of corrosion products in the cooling elements. Ion exchange resins are used to control the chemistry of the loop by increasing or decreasing pH, lowering conductivity, and removing dissolved copper.

PRODUCT	FEATURES AND RECOMMENDED USES	TYPE	MATRIX	MINIMUM TOTAL VOLUME CAPACITY (eq/L)	IONIC FORM AS SHIPPED
<b>INDIVIDUAL RESINS FOR CUSTOMIZED CHEMISTRY CONTROL<sup>1</sup></b>					
AMBERLITE™ HPR550 OH	High capacity uniform particle size gel type anion resin. Paired best with AMBERLITE™ HPR650 H or AMBERLITE™ HPR1300 Na depending on the preferred operational method.	SBA	GEL	1.10	OH <sup>-</sup>
AMBERLITE™ HPR1300 Na	High capacity uniform particle size gel type cation resin. Sodium form cation is best used for enhanced pH control. Paired best with AMBERLITE™ HPR550 OH to be used to increase the pH of the purification loop while still removing copper and other cation impurities.	SAC	GEL	2.20	Na <sup>+</sup>
AMBERLITE™ HPR650 H	A high capacity uniform gel cation resin for removal of copper and other cation impurities and pH control. Paired best with AMBERLITE™ HPR550 OH to be used when neutral pH is targeted.	SAC	GEL	2.00	H <sup>+</sup>
<b>READY TO USE MIXED BEDS</b>					
AMBERLITE™ IRN150 H/OH	Nuclear grade mixed bed composed of uniform particle size AMBERLITE™ IRN77 H and IRN78 OH on a 1:1 equivalent basis for full demineralization.	MB	GEL/ GEL	1.90/1.20	H <sup>+</sup> /OH <sup>-</sup>
AMBERLITE™ IRN160 H/OH	High capacity nuclear grade mixed bed composed of uniform particle size AMBERLITE™ IRN97 H and IRN78 OH on a 1:1 equivalent basis. Designed to minimize separation of anion and cation during installation and transfer in stator cooling applications.	MB	GEL/ GEL	2.10/1.20	H <sup>+</sup> /OH <sup>-</sup>
AMBERLITE™ IRN170 H/OH	Premium nuclear grade mixed bed composed of uniform particle size AMBERLITE™ IRN99 H and IRN78 OH on a 1:1 equivalent basis. Offers maximum oxidative stability and highest operating capacity to achieve the lowest ionic leakage and longest resin life.	MB	GEL/ GEL	2.50/1.20	H <sup>+</sup> /OH <sup>-</sup>

**Key:**

- <sup>1</sup> = The individual cation and anion must be prepared in-situ.
- 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. Dow partners with you, our customer, to understand unmet needs and develop tailored solutions.

### ● RESEARCH & DEVELOPMENT

Chauny, France\*  
Collegetown, PA\*  
Edina, MN\*  
Huzhou, China  
Kaust Jeddah, KSA  
Midland, MI\*  
Shanghai, China\*  
Tarragona, Spain\*\*

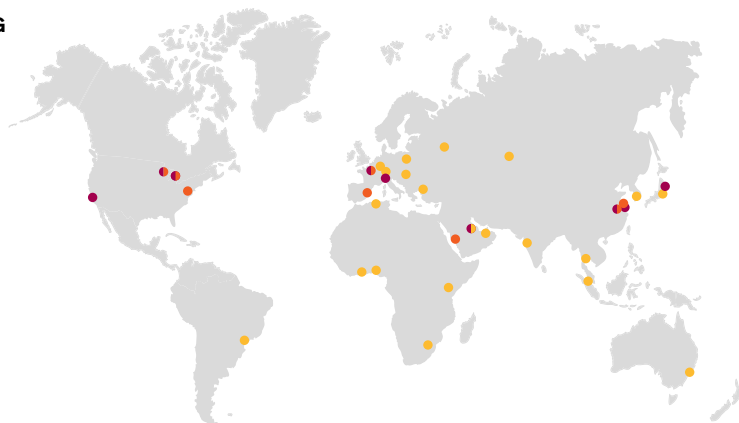
\*DW&PS Technology Center  
\*\*Global Water Technology Center

### ● COMMERCIAL OPERATIONS

Astana, Kazakhstan  
Bangkok, Thailand  
Budapest, Hungary  
Dubai, UAE  
Horgen, Switzerland  
Johannesburg, South Africa  
Kuala Lumpur, Malaysia  
Moscow, Russia  
Mumbai, India  
Nairobi, Kenya  
Rheinmünster, Germany  
São Paulo, Brazil  
Seoul, Korea  
Sydney, Australia  
Tokyo, Japan  
Warsaw, Poland

### ● MANUFACTURING

Chauny, France  
Edina, MN  
Fombio, Italy  
Huzhou, China  
Jubail Industry City, Saudi Arabia  
Menlo Park, CA  
Midland, MI  
Qingpu, China  
Soma, Japan



## Water & Process Solutions

7600 Metro Blvd.  
Edina, MN 55439

## For more information, contact our Customer Information Group:

Asia Pacific	+86 21 3851 4988
Europe, Middle East, Africa	+31 115 672626
Latin America	+55 11 5184 8722
North America	1-800-447-4369

[dowwaterandprocess.com](http://dowwaterandprocess.com)

WARNING: Oxidizing agents such as nitric acid attack organic ion exchange resins under certain conditions. This could lead to anything from slight resin degradation to a violent exothermic reaction (explosion). Before using strong oxidizing agents, consult sources knowledgeable in handling such materials.

NOTICE: No freedom from infringement of any patent owned by Dow or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other government enactments. The product shown in this literature may not be available for sale and/or available in all geographies where Dow is represented. The claims made may not have been approved for use in all countries. Dow assumes no obligation or liability for the information in this document. References to "Dow" or the "Company" mean the Dow legal entity selling the products to Customer unless otherwise expressly noted. NO WARRANTIES ARE GIVEN EXCEPT FOR ANY SPECIFIC WARRANTY SET FORTH HEREIN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

All information set forth herein is for informational purposes only. This information is general information and may differ from that based on actual conditions. Please note that physical properties may vary depending on certain conditions and while operating conditions stated in this document are intended to lengthen product lifespan and/or improve product performance, it will ultimately depend on actual circumstances and is in no event a guarantee of achieving any specific results. Nothing in this document should be treated as a warranty by Dow.

Printed in the U.S.A.