

**LG QuantumPure™ IX Resins**

# Technical Service Bulletin 915

## Ion Exchange Resin Analysis Service Request Form

### General Conditions

Customers may request analysis of product that has deteriorated in performance due to fouling, contamination, damage, etc. during operation. The customer is responsible for prepaying the shipping charges of the product for analysis. The Manufacturer will not accept any product unless it is prepaid. The Manufacturer may request that the customer issue a valid purchase order covering all work related to analytical work. Please discuss the detailed costs related to the resin analysis with LG Chem sales representative.

The resin sample should be taken as prescribed in TSB 914.

Section 1			
<b>TO BE FILLED OUT BY REQUESTOR</b>			
Name of Requestor		Date of Request	
<b>CUSTOMER INFORMATION</b>			
Company Name			
Address/ Region			
Contact Person			
Phone/ Mobile		Email	
<b>REPORTED PROBLEM</b>			
<input type="checkbox"/> Low Output Between Regeneration		<input type="checkbox"/> Poor Outlet Quality	
<input type="checkbox"/> High Rinse Volume		<input type="checkbox"/> Suspected Iron/Particulate Fouling	
<input type="checkbox"/> Suspected Organic fouling		<input type="checkbox"/> Other	
<b>TIME WHEN PROBLEM FIRST OCCURRED</b>			
<input type="checkbox"/> Before Resin Loading (In case of replacement)			
<input type="checkbox"/> After Commissioning/Start-up (Less than 24 hours of continuous operation)			
<input type="checkbox"/> After Startup (within 30 days)			
<input type="checkbox"/> Other:		Months After Startup	
<b>RESIN INFORMATION</b>			
Resin Grade:		Resin Volume	
No. of Trains		No. of Trains affected	
Resin Batch no.:			
<b>NOTES</b>			
Has the resin(s) to be sent been exposed to Hazardous Materials? <input type="checkbox"/> Yes <input type="checkbox"/> No			
If <b>Yes</b> , please provide details below (or attach to this document) and ensure that MSDS sheets for all hazardous materials are submitted along with this Resin Analysis request. If approved, the same MSDS sheets are to be included with the resin shipment.			

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Section 2				
TO BE FILLED OUT BY REQUESTOR				
SYSTEM INFORMATION				
Plant Location:				
<input type="checkbox"/> New			<input type="checkbox"/> Replacement	
Plant Configuration				
Inlet Quality				
Expected Outlet Quality				
Start-Up Date				
Plant Capacity				
Total Quantity of Resin				
Application				
Output Between Regeneration (OBR) & Regeneration Frequency				
Pretreatment				
Feed Water Source:	<input type="checkbox"/> Well	<input type="checkbox"/> Surface Intake	<input type="checkbox"/> RO Permeate	<input type="checkbox"/> Distillate
	<input type="checkbox"/> Municipal Supply	<input type="checkbox"/> Industrial Waste	<input type="checkbox"/> Other	
Intended Use:	<input type="checkbox"/> Boiler Feed	<input type="checkbox"/> Condensate Recirculation	<input type="checkbox"/> Process Water	
	<input type="checkbox"/> EDM/OLED Semiconductor	<input type="checkbox"/> Other		
OPERATING DATA INFORMATION				
Data Collection Frequency	<input type="checkbox"/> Daily	<input type="checkbox"/> Per Shift	<input type="checkbox"/> Other	
Data Format	<input type="checkbox"/> Handwritten	<input type="checkbox"/> Excel Spreadsheet	<input type="checkbox"/> SCADA	<input type="checkbox"/> Other

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Section 3
TO BE FILLED OUT BY REQUESTOR
REQUIRED TEST (BASIC PERFORMANCE ANALYSIS)
<input type="checkbox"/> Water Retention, %
<input type="checkbox"/> Total Exchange Capacity, eq/l
<input type="checkbox"/> Apparent Density, g/l
<input type="checkbox"/> Whole Bead Count, %
REQUIRED TEST (OPTIONAL PERFORMANCE ANALYSIS)
<input type="checkbox"/> Organic Contamination
<input type="checkbox"/> Iron Contamination
<input type="checkbox"/> Particle Distribution
<input type="checkbox"/> Friability
<input type="checkbox"/> Osmotic Stability

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## Ion Exchange Resin Analysis Service Request Form

### Commercial Invoice

Sender:			Recipient: <i>Contact LG Chem Technical Service representative for shipping information</i>			
Email Address: Phone Number:						
Invoice Date:			Invoice Number:			
Waybill Number:			Sender's Reference:			
Carrier:			Recipient's Reference:			
Quantity	Country of Origin	Description of Contents	Harmonized Code	Unit Weight	Unit Value	Sub Total
Total Net Weight			Total Declared Value: (USD)			
Total Gross Weight			Freight & Insurance Charges (USD):			
Total Shipment Pieces			Other Charges (USD):			
Currency Code			Total Invoice Amount (USD):			
Type of Export			Terms of Trade:			
Reason for Export						
General Notes						

The exporter of the products covered by this document declares that, except where otherwise clearly indicated, these products are of Republic of Korea, preferential origin.

I/We hereby certify that the information on this invoice is true and correct and that the contents of this shipment are as stated above.

Name:  Position in Company:  Signature:  _____	Company Stamp
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The information and data contained herein are deemed to be accurate and reliable and are offered in good faith, but without guarantee of performance. LG Chem assumes no liability for results obtained or damages incurred through the application of the information contained herein. Customer is responsible for determining whether the products

and information presented are appropriate for the customer's use and for ensuring that customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Specifications subject to change without notice. Quantumpure is the Trademark of LG Chem. All rights reserved. © LG Chem, Ltd