

# **Ion Exchange Resins System Optimization Service<sup>SM</sup> (SOS) Request Form**

This form must be filled in with all the requested information and e-mailed with a Purchase Order to [sos@dow.com](mailto:sos@dow.com) before the System Optimization Service<sup>SM</sup> Process can begin. Once a purchase order and a completed form have been received you will receive an email containing a Return Authorization (RA) Number and shipping instructions. For assistance with a quotation for SOS requests - please contact your local sales representative.

## **System Optimization Services<sup>SM</sup> (S.O.S.)**

Assessment of products returned by customers in order to determine its general status, source of performance issues or areas for optimization. In addition, the information collected in our lab results can be complemented with customer feedback and plant troubleshooting observations. The cost of this service will depend on the number and complexity of the tests required. The expected turn-around time for this service will be approximately 30 working days on average, starting when products are received at Dow testing sites. A complete report including the main relevant findings is included in the service.

Different types of services are available depending on the application where the ion exchange resins are being used

## **Ion Exchange Resin Services:**

Objective of the service:

**WATER**    Softening    Demin    Industrial Water    Power    Condensate Polishing    Ultrapure Water

**SPECIALTY**    Industrial Process (Catalysis, Mining, Chemical Processing)    Sweeteners    Bioprocessing  
 Nutrition    Others. Please, specify

Contact your Dow Representative for detailed information and additional tests available.

## **Section 1: Must be completed for all returns independent of the technology**

Dow Water Solutions offers products testing services to its customers for a nominal fee:

Please indicate Purchase Order (PO):

DOW TS&D Contact:

DOW KAM Contact:

Product Return Details		
Name		
Company		
Plant Name		
Address		
City	State	Country
Postal Code/Zip		
Phone		
Fax		
e-mail		

Invoice to be sent to		
Name		
Company		
Plant Name		
Address		
City	State	Country
Postal Code/Zip		
Phone		
Fax		
e-mail		

## Section 2: System Optimization Services<sup>SM</sup>

### Ion Exchange Resins:

Number of resin samples sent for S.O.S.: \_\_\_\_\_ (Attach separate sheet if needed for production batch number)

Product Name(s)	Resin Type(s) (SAC, SBA, WAC, WBA)	Vessel Number (1,2,A, B...)	Samples taken <sup>(1)</sup>	Regenerated or exhausted <sup>(2)</sup> (R ou E)	Hazardous chemicals in sample? <sup>(3)</sup>	Confirm that sample is rinsed <sup>(4)</sup>	Symptoms Description
						<input type="checkbox"/>	
						<input type="checkbox"/>	
						<input type="checkbox"/>	
						<input type="checkbox"/>	
						<input type="checkbox"/>	

(1) Please indicate if the sample was taken from the top (T), middle (M), bottom (B) of the bed or vessel or if it is a composite sample.

(2) Please indicate when the sample was taken: after regeneration (R) or after exhaustion (E)[ i.e. at the end of the cycle] Consider that to evaluate the efficiency of your regeneration procedure, the samples needs to be taken at the end of regeneration after the slow rinse.

(3) If yes, please specify.

(4) Please rinse the samples in an appropriate way to prevent hazardous chemicals.

### Additional information:

- How long have the resins been in operation? (specify if there has been partial replacements so the resin sample may be a blend of differently aged materials) \_\_\_\_\_
- Has there been any operational issue? How long has the issue been observed? Did the issue suddenly occur or did gradually increase over time? If former, was there any change made at the plant that could be associated with the issue? If latter, when was the issue showing up for the first time and how does the trend evolve over time?  
\_\_\_\_\_
- Which type of regeneration is used in the plant? Has there been any special cleaning performed for these resins? (please specify as much as possible since this information is very helpful to determine upfront the type of tests to be done) \_\_\_\_\_

Vessel for Sample	1	2	3	4	5	6
Identification						
Diameter (ft/m)						
Height of Resin Bed (ft/m)						
Height of Vessel (ft/m)						
Resin Type						
Lot Number(s), if possible						
Approx. Date Installed(Mo\Yr)						
Has it Been Topped Off?						
Approx. Rebed Time, months						
Regenerant Used and Concentration						
Regeneration Temperature Range						
Regeneration Flowrate						
Regeneration Volume						
Co- or Counter-current Regeneration Mode?						
Cross-Regeneration Frequency						
Cross-Regeneration Used and Concentration						

