

Please ship completed questionnaire
along with sample to:
LCI Corporation
Test Center
4404-C Chesapeake Dr.
Charlotte, NC 28216



QUESTIONNAIRE

Thin-Film Evaporation

Contact: Dexter Wallwork

The information requested in this questionnaire will help us properly evaluate your particular application. Please attach any additional pertinent information. Call us if you have any questions.

Your Name _____ Title _____

Alternate Contact _____ Title _____

Company Name _____ Div/Dept _____

Phone No _____ Ext _____ Fax No _____ Date _____

Email _____

Mailing Address _____

Shipping Address _____

City _____

City _____

State _____ Zip _____

State _____ Zip _____

I. Project Information

1. Project Designation: _____

2. Project Objectives: _____

3. What problems will Thin-Film Evaporation solve? _____

4. What is the end use of the product? _____

5. Desired Capacity, feed throughput basis: _____ lbs/hr (continuous) _____ lbs/year

II. Product Information

1. Process Rates and Weight Percent Splits:

Components	MW	Feed		Overhead		Bottoms	
		lbs/hr	%W/W	lbs/hr	%W/W	lbs/hr	%W/W
A.							
B.							
C.							
D.							
E.							
F.							
TOTAL			100%		100%		100%

2. Is the feed: Slurry? Solid? (Melt Point ____°F/°C), Solution?

3. Does the product degrade with Heat? Air? Shear?
 Other? _____

4. What is the nature of the degradation that occurs? (color, coagulation, change in properties, hazardous decomposition/products, etc.) _____

5. Maximum temperature the product can be exposed to:

For:	1 min.	2 min.	30 min.	1 hour	_____ hours
Feed					
Overhead					
Bottoms					

6. Physical & Thermodynamic Properties (if data are estimates, please so state: _____)

Component s	Spec. Heat	Spec. Gravity	La. Ht. Vap.	Melt Point	Therm. Cond.	Visc.	Visc.	Boiling Point	Boiling Point
	BTU/lb° F		BTU/lb	°C	BTU/hr ft °F	CP @ Temp. 1=____ =____	CP @ Temp.2 =____	°C @ 760 mmHg	°C @ press. 2 =____
Feed									
Overhead									
Bottoms									
A.									
B.									
C.									
D.									
E.									
F.									

III. Specification for Discharge Streams

1. Required Product Quality:

	Residuals		Color	Viscosity
	Component	%W/W		(Units & Temp)
Overhead (Distillate)				
Bottoms (Concentrate)				

2. Analytical Methods Required: _____

3. Other important properties: _____

IV. Present Process Scheme

1. If product is already being processed, what type of equipment is used? _____

2. Is this operation batch or continuous? _____
3. What are operating conditions of the process? _____
4. Are production or test data available? ____ Data Generated: _____

5. What improvements are desired? _____

V. Special Design Standards and Considerations

1. What are the required materials of construction for the product wetted parts?
Carbon Steel ____; 304 SS ____; 316SS ____; Hastelloy ____;
Monel ____; Other _____
2. What are the gasketing requirements? Teflon ____Silicone ____Viton ____
Other _____
3. Utilities Available: Steam: _____psig; Hot Oil: _____°F, Type _____
Cooling Water: _____°F; Chilled Water: _____°F;
Electricity: _____V, _____Ph, _____Hz;
Instrument Air: _____psig.
4. Are explosion proof electrical components required? ____Classification: Cl _ , Gp _ , Div _

VI. Special Testing Considerations

1. Can feed material be pumped directly from the shipping container? _____
If not, what type of feed system do you recommend? _____

2. Under what conditions should the feed material be stored? _____
3. What is a good solvent for cleaning the test equipment? _____
4. Briefly describe any problems you anticipate: _____

VII. Material Handling Considerations

1. Is the feed material a hazardous waste as defined in 40CFR 261(i.e. would it be disposed of if it were not being used for testing)? _____
If yes, please provide the Hazardous Waste No. _____
2. Are any of the materials considered an acute hazardous waste? _____
3. LCI will return all non-hazardous test materials to the client. Hazardous materials (i.e. stripped solvent or unused feed) can only be returned to the customer if the materials will be put back into the client's process or be used without further processing. If the hazardous material cannot directly re-used, the material must be disposed of (note: samples for analysis may be returned). Will material generated from this test require disposal?

LCI can only create and dispose of 1000 kg per month as a small quantity generator. Is the amount of hazardous material being sent for testing less than 1000 kg?

We have endeavored to ask only for relevant process and safety data so that we can plan for and perform a productive test program under the safest operating conditions. Please take a few moments to review the completed questionnaire and attach any additional information about your products that are necessary for the safe and effective execution of this test program.

Comments: _____

Please attach a completed **Material Safety Data Sheet(s)**, such as OSHA Form 20, for your product(s). Please enclose hazardous labels and D.O.T.-UN numbers for all materials. **(DUE TO FEDERAL LAW, NO SAMPLE WILL BE RECEIVED NOR TESTING CONDUCTED WITHOUT THIS INFORMATION)** Your company's emergency phone number: _____.

On the graph provided on the next page, please plot Vapor Pressure vs. Temp. for each component and Viscosity vs. Temp. for the Feed, Bottoms, and Distillate.

Please label axes properly.

Plot Viscosity vs. Temperature and Vapor Pressure vs. Temperature
 (Please indicate viscosity scale used)

