



ARC[®]/APTAC[™] Test Design Form

Client Contact Information

Name:		Title:
Company:		
Address:		Telephone 1:
City:		Telephone 2:
State:	Zip Code:	Email:
Signature:		Date:

Test Information

Test Overview				Generic Type of Reaction Expected			
Number of tests:				<input type="checkbox"/> Polymerization			
Are any of these tests conditional to test results?				<input type="checkbox"/> Decomposition			
Testing Objective				<input type="checkbox"/> Nitration			
<input type="checkbox"/>	Thermal stability temperature range:	°C	°C	<input type="checkbox"/> Hydrogenation			
<input type="checkbox"/>	Isothermal testing target temperature:			Other:			
Other:				Are there expected known reactions?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Test Heat-Up Method (if known)				Other Process Data (if known)			
Start temperature:		°C	<i>(default is 50 °C)</i>	Estimated onset temperature:		°C	
Temperature steps:		°C	<i>(default is 5 °C)</i>	Estimated temperature rise:		°C	
Final temperature:		°C	<i>(default is 350 °C)</i>	Estimated maximum pressure:		psig	
<input type="checkbox"/> Customized <i>(Please contact Project Manager)</i>				<i>Please attach DSC, ARC or other calorimetry data if available.</i>			
Test Vessel Material Construction							
Stainless steel <input type="checkbox"/> Hastelloy C <input type="checkbox"/> Titanium <input type="checkbox"/> Other (please explain) <input type="checkbox"/>							
Chemistry				Material Compatibility			
Explain known incompatibilities:				Are any of the chemicals incompatible with:			
				<input type="checkbox"/> Stainless steel		<input type="checkbox"/> Silver	
				<input type="checkbox"/> Hastelloy C		<input type="checkbox"/> Zinc	
				<input type="checkbox"/> Titanium		<input type="checkbox"/> Nickel	
				<input type="checkbox"/> Copper			
Stirrer <i>(Default is No for ARC; Yes for APTAC)</i>							
<input type="checkbox"/> Yes		<input type="checkbox"/> No		Speed		rpm	



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List of Reagents for Test Recipe(s)

Chemical Name	Physical State at Room Temp.			Heat Capacity (cal/g°C)	Density (g/ml)	Normal Boiling Point (°C)	Viscosity Type		
	Solid	Liquid	Gas				Water	Motor Oil	Molasses

Please attach material safety data sheets for each reagent.
 Note any characteristic personnel safety hazards to be aware of when handling reagents or reaction products.

Recipe Specifications

Test Recipe #1 Pad gas: Air Other _____

Chemical Name	Charge Mass	Wt. % in Vessel	Other Information

Test Recipe #2 Pad gas: Air Other _____

Chemical Name	Charge Mass	Wt. % in Vessel	Other Information

If additional recipes are required please attach additional pages as necessary to define the tests.
 Expected chemistry reaction products and potential decomposition products should be provided.

Mixing Reagents *Note important steps for mixing reagents (order of addition, temperature requirements, etc.)*

Other Process Information *Provide additional information regarding the process (moles of gas to be generated, etc.)*

Chemical Acquisition

Chemicals will be: Provided by the client
 Procured by ioKinetic (billed at cost to client)

Sample Return Request

Return experimental product to the client for analysis (billed at cost to client). If returning to a different address than listed on page one (1), please indicate alternate shipping address:

Additional Comments

For Lab Use Only		Job Number	
Clean-out: <input type="checkbox"/>	Neutralization <input type="checkbox"/>	Special Procedure:	
Tests Completed:		Date Completed	



FORM: 5.04-ARC Rev. 1

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