

**Client Information**

Company name	_____
Contact person	_____
Street	_____
Postal code, city	_____
Country	_____
Phone number	_____
E-mail address	_____
Your reference	_____
Date	_____

**Description**

**Sulzer Chemtech Ltd.**  
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P.O. Box 65  
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Phone +41 52 262 3749

**Sulzer Chemtech USA Inc.**  
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1 Sulzer Way  
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**Sulzer Chemtech Pte. Ltd.**  
Polymer Technology  
10 Benoi Sector  
629845 Singapore  
Phone +65 6515 5500

**Process Data**

Product Side

Product name	_____			
Fluid class / category	1) _____			
Product flow rate	min. _____	norm. _____	max. _____	[ kg/h ]
Composition of product	_____			[ wt-% ]
	_____			[ wt-% ]
	_____			[ wt-% ]
	_____			[ wt-% ]
	<u>Inlet</u>		<u>Outlet</u>	
Temperature	_____	_____	_____	[ °C ]
Density	_____	_____	_____	[ kg/m <sup>3</sup> ]
Specific heat capacity	_____	_____	_____	[ kJ/kg°K ]
Thermal conductivity	_____	_____	_____	[ W/m°K ]
Absolute viscosity	2) _____	_____	_____	[ mPas ]
Vapor pressure	_____	_____	_____	[ bar <sub>abs</sub> ]
Inlet pressure	_____	_____	_____	[ barg ]
Max. allowable pressure drop	_____			[ bar ]
Max. allowable residence time	_____			[ s ]
Fouling factor	_____			[ m <sup>2</sup> °K/W ]
Reaction heat	3) _____			[ kW ]
Jacket required	_____			

Energy Side

Heat transfer fluid	4) _____			
Flow rate	_____			[ kg/h ]
	<u>Inlet</u>		<u>Outlet</u>	
Temperature	_____	_____	_____	[ °C ]
Density	_____	_____	_____	[ kg/m <sup>3</sup> ]
Specific heat capacity	_____	_____	_____	[ kJ/kg°K ]
Thermal conductivity	_____	_____	_____	[ W/m°K ]
Absolute viscosity	_____	_____	_____	[ mPas ]
Max. allowable pressure drop	_____			[ bar ]
Min. allowable velocity	_____			[ m/s ]
Fouling factor	_____			[ m <sup>2</sup> °K/W ]

- 1) Group 1 comprises fluids defined as explosive, flammable, toxic and oxidizing  
Group 2 comprises all other fluids
- 2) Please provide viscosity curves in function of shear rate (0 - 100 1/s) and at different temperatures covering the operating range of the product and heat transfer fluid.
- 3) Please provide comprehensive information on reaction heat to be removed and reaction kinetics.
- 4) Please indicate type, make and provide heat transfer fluid description and physical properties.

**Mechanical Data**

Design code \_\_\_\_\_  
 Bundle removable 5) \_\_\_\_\_  
 Space limitations \_\_\_\_\_  
 Installation 6) \_\_\_\_\_

	<u>Product Side</u>	<u>Energy Side</u>	
Design temperature	_____	_____	[ °C ]
Design pressure	_____	_____	[ barg ]
Material of construction	_____	_____	
Preferred connections inlet	_____	_____	
Preferred connections outlet	_____	_____	

**Remarks**

- 5) Bundle or mixing elements to be removable.
- 6) Horizontal, inclined (indicate angle from horizontal), vertical flowing up or vertical flowing down.