

# Inquiry data sheet

Client

Project Name

Item no.

Inquiry no.

Spec. no.

Person in charge

Date

Phone

Fax

E-mail

**1) Product**

## Special product characteristics

- foaming tendency     sublim. tendency     explosiv     agglom. tendency  
 abrasive     adhesive     lumps tendency     hard to wet  
 toxic     insoluble     corrosive     other

**2) Flow behaviour**

- newtonian     non-newtonian     pseudoplastic     dilatant     other

Shear rate  $\gamma$   s<sup>-1</sup>

method of measurement

**3) Process**

- known from laboratory test     known from production     unknown

Operation     Continuous     Batch     Passing

Progress of process

**4) Mixing task**

Homogenising/Blending    Mixing time  min

Suspension

Particle size  $d_{k95}$    $\mu\text{m}$

density   $\text{kg/m}^3$

allowable  $\Delta\rho$  over filling height

weight percent.  %

1s Criterion

90% Criterion

Bottom-off

Full Suspension

Dispersion liquid-liquid

Quality of emulsion     stabile for a short time     stabile for a long time

necessary Sauter-diameter of the drops      $\mu\text{m}$

---

Dispersion gas-liquid

Gassing rate in      $\text{Nm}^3/\text{h}$      VVM      $\text{m}^3/\text{s}$      $k_{\text{La}}$ -value      $\text{h}^{-1}$

Type of gas        Degree of absorbtion     %

Kind of gassing     Lance     Sparger     Shaft     from liquid surface

---

Dispersion solid-liquid

Range of partical size Start-point        End-point   

---

Heat transfer     Heating     Cooling     Temperature holding

$\alpha_i$       $\text{W}/\text{m}^2\text{K}$       $\alpha_a$       $\text{W}/\text{m}^2\text{K}$       $k$       $\text{W}/\text{m}^2\text{K}$

	Heating	Cooling	
Thermal energy	<input type="text"/>	<input type="text"/>	kW
Mass	<input type="text"/>	<input type="text"/>	kg
Liquid level	<input type="text"/>	<input type="text"/>	mm
Starting temperature	<input type="text"/>	<input type="text"/>	$^{\circ}\text{C}$
Endtemperature	<input type="text"/>	<input type="text"/>	$^{\circ}\text{C}$
max./min. time	<input type="text"/>	<input type="text"/>	h
Heating/Cooling media	<input type="text"/>	<input type="text"/>	
Specific heat	<input type="text"/>	<input type="text"/>	$\text{J}/\text{kg}\cdot\text{K}$
Inlet temperature	<input type="text"/>	<input type="text"/>	$^{\circ}\text{C}$
Outlet temperature	<input type="text"/>	<input type="text"/>	$^{\circ}\text{C}$
Pressure	<input type="text"/>	<input type="text"/>	bar(g)
Flow rate	<input type="text"/>	<input type="text"/>	kg/h

5) **Mixing degree**     Mild             Average             Violent

		Component 1	Component 2	Component 3	Mixture
<b>Product data</b>					
Density	kg/m <sup>3</sup>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Viscosity	mPas	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Concentration	% Gew	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
State of aggregation	kg/m <sup>3</sup>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Quantity	kg	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

6) **Operating conditions**

Pressure/Vacuum  bar(g)                      Temperature  °C

7) **Design conditions**

Pressure/Vacuum  bar(g)                      Temperature  °C

8) **Vessel data**

Shape of bottom                       Shape of top shell

Nominal volume  m<sup>3</sup>                      Filling volume  m<sup>3</sup>

Liquid level h<sub>1</sub>  mm                      Vessel diameter d<sub>1</sub>  mm

Length TL-TL  mm

Size of manhole                       Handling space

Mounting flange

Standard

Size

Rating  Face

Mounting plate

Length       Width       Thickness

Agitator arrangement

Material of prod. wetted parts

Required surface of product wetted parts

---

**9) Motor**

Preferable supplier

Number of poles

Tension

V

Frequency

Hz

Current

A

Insulation

Protection class

Ambient temperature

°C

Enclosure

Erection altitude

müNN

Number of phases

---

**10) Gearbox**

Supplier

Bearing lifetime B<sub>10</sub>

Service factor

---

**11) Seal**

Without

Lip seal

Stuffing box

Mechanical seal

---

**12) Flame proof conditions**

yes

no

Area classification inside vessel

Area classification outside vessel

Dust protection

Gas protection

Temperature class T

---

**13)**

Remarks