



## QUESTIONNAIRE SLIDE BEARING

Date: \_\_\_\_\_

### 1. General data:

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Post code: \_\_\_\_\_ City: \_\_\_\_\_ Country: \_\_\_\_\_

Contact: \_\_\_\_\_ Department: \_\_\_\_\_

Phone: \_\_\_\_\_ E-Mail: \_\_\_\_\_

### 2. Application data:

Description of the application: \_\_\_\_\_

Present material: \_\_\_\_\_

Demand each year: \_\_\_\_\_ actual price: \_\_\_\_\_

Why do you want to use plastic: \_\_\_\_\_

Which disadvantages should be discontinued: \_\_\_\_\_

Grade of function impairing: \_\_\_\_\_

Which advantages should be reached: \_\_\_\_\_

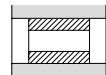
### 3. Type of bearing::

Radial bearing

enclosed



not enclosed



Axial bearing

### 4. Connecting parts:

bore of housing and tolerance: \_\_\_\_\_ mm shaft material: \_\_\_\_\_

housing outside  $\varnothing$  or width x height: \_\_\_\_\_ mm shaft length: \_\_\_\_\_

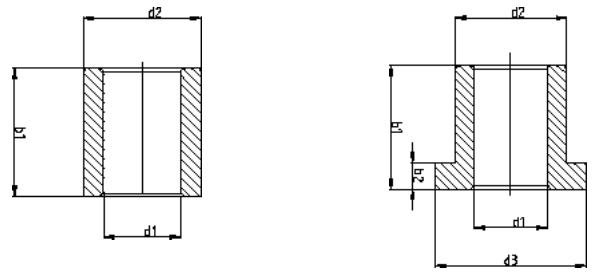
shaft diameter and tolerance: \_\_\_\_\_ mm roughness height of shaft Ra: \_\_\_\_\_  $\mu\text{m}$

material of housing: \_\_\_\_\_ Hardness: \_\_\_\_\_ HRC



5. Dimensions of bearing:

- Inside diameter d1: \_\_\_\_\_ mm
- Outside diameter d2: \_\_\_\_\_ mm
- Collar diameter d3: \_\_\_\_\_ mm
- Length b1: \_\_\_\_\_ mm
- Collar thickness b2: \_\_\_\_\_ mm
- max./ minimum radial clearance: \_\_\_\_\_ mm / \_\_\_\_\_ mm
- max. / minimum axial clearance: \_\_\_\_\_ mm / \_\_\_\_\_ mm



6. Attachment of the bearing:

- stiff fit of the bearing in the housing
- by a connection
- by glueing
- \_\_\_\_\_
- stiff fit of the bearing on the shaft
- by form-fit
- by dowel pins
- \_\_\_\_\_
- by force closure
- by pressing in

7. Surrounding medium:

- Outside use
- Medium: \_\_\_\_\_ with a temperatur of \_\_\_\_\_ °C
- Air with a temperature of \_\_\_\_\_ °C  
and a relative humidity of \_\_\_\_\_ %
- Chemical (Name) \_\_\_\_\_  
Concentration: \_\_\_\_\_ % pH-value: \_\_\_\_\_ Temp: \_\_\_\_\_ °C
- Inside use

8. Medium between connecting parts:

8.1. Lubrication

- No lubrication - dry operation -
- Oil lubrication
- Grease lubrication
- Water lubrication:
- available water volume flow rate: \_\_\_\_\_ Kg/s
- existing water flow temperature: \_\_\_\_\_ °C
- maximum water outlet temperature: \_\_\_\_\_ °C
- Grease lubrication unique
- other:

8.2. Medium between wear part and opposing material

- Abrasive particles:
- Material: \_\_\_\_\_
- Ammount: \_\_\_\_\_
- as surrounding medium
- Size: \_\_\_\_\_
- others: \_\_\_\_\_



### 9. electrical influences:

Demanded electrical influences:

- Penetration resistance \_\_\_\_\_ kV/mm
- Dielectric constant \_\_\_\_\_
- Loss factor \_\_\_\_\_
- Resistivity \_\_\_\_\_ Ohm/cm
- Surface resistance \_\_\_\_\_ Ohm

### 10. Load:

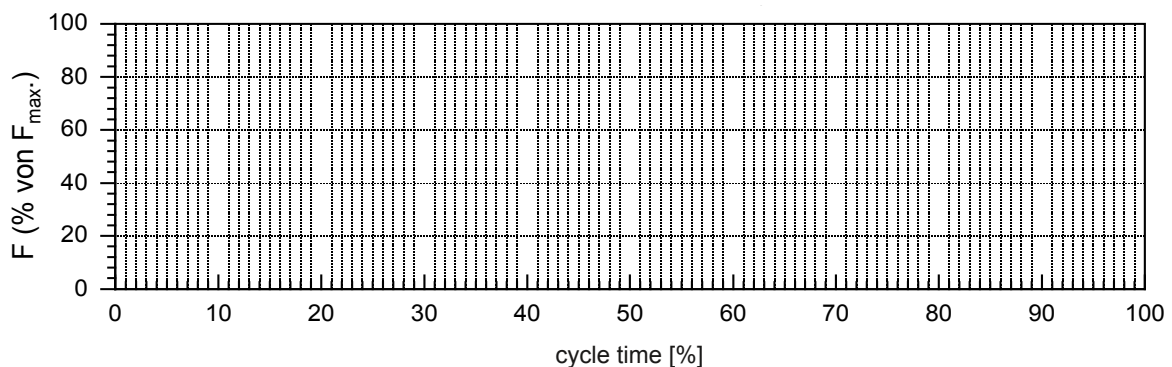
10.1. Radial load:

- static stress                       fatigue stress                       cyclic stress
- continously: \_\_\_\_\_ N                      maximum: \_\_\_\_\_ N                       impact factor: \_\_\_\_\_
- Loading time of static radial load: \_\_\_\_\_ ms/ s / min / h / days / years
- Loading time of max. radial load: \_\_\_\_\_ ms/ s / min / h / days / years
- How often per time unit does the max. radial load occur: \_\_\_\_\_
- Low long are the breaks between the max. radial force: \_\_\_\_\_

10.1. Axial load:

- static stress                       fatigue stress                       cyclic stress
- continously: \_\_\_\_\_ N                      maximum: \_\_\_\_\_ N                       impact factor: \_\_\_\_\_
- Loading time of the static axial - load: \_\_\_\_\_ ms/ s / min / h / days / years
- Permanence of a load cycle: \_\_\_\_\_ ms/ s / min / h / days / years
- Ammount of load cycles per time unit: \_\_\_\_\_
- How long are the breaks between the load cycles: \_\_\_\_\_

Please sketch the radial load flow / axial load flow of one cycle





**11. Movement:**

- no movement further on at 12
- no rotation further on at 11.2

11.1 Rotation

permanent screwspeed: \_\_\_\_\_ maximum screwspeed: \_\_\_\_\_ min<sup>-1</sup>

Loading time at permanent screwspeed: \_\_\_\_\_ ms/ s / min / h / days / years

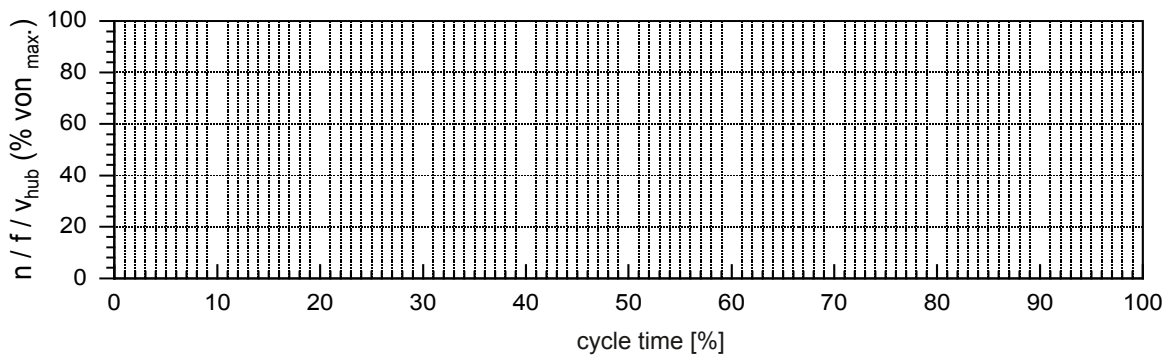
Loading tim at maximum screwspeed: \_\_\_\_\_ ms/ s / min / h / days / years

Permanence of one load cycle: \_\_\_\_\_

Number of load cycles per time unit: \_\_\_\_\_

How long are the breaks between the load between the load cycles: \_\_\_\_\_

Please sketch the screw speed flow flow / stroke speed flow / frequency flow of one cycle



- no oscillation further on at 11.3

10.2 Oscilation: \_\_\_\_\_ tilting angle: \_\_\_\_\_ °

permanent frequency: \_\_\_\_\_ Hz maximum frequency: \_\_\_\_\_ Hz

Loading time with perm. frequency: \_\_\_\_\_ ms/ s / min / h / days / years

Loading time with max. frequency: \_\_\_\_\_ ms/ s / min / h / days / years

Permanence of one stress cycle: \_\_\_\_\_

How long are the breaks between the stress cycles: \_\_\_\_\_

- no translation further on at 12

10.3 stroke movement:

Permanent stroke speed

Perm. stroke: \_\_\_\_\_ mm number of strokes per time unit: \_\_\_\_\_

Maximum stroke speed

Max. stroke: \_\_\_\_\_ mm number of strokes per time unit: \_\_\_\_\_

Loading time of permanent stroke speed: \_\_\_\_\_ ms/ s / min / h / days / years

Loading time of maximum stroke speed: \_\_\_\_\_ ms/ s / min / h / days / years

Permanence of one stroke: \_\_\_\_\_

How long are the breaks between the strokes: \_\_\_\_\_



**12. Ambient temperature:**

sustained temperature: \_\_\_\_\_ °C

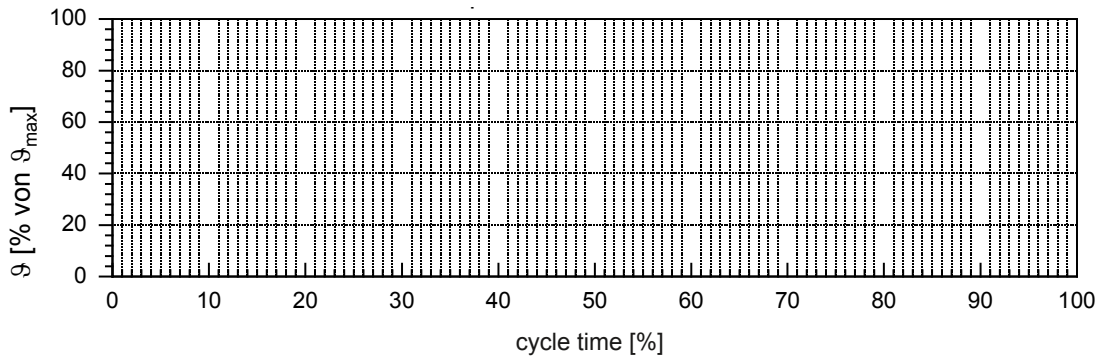
maximum temperature: \_\_\_\_\_ °C

How often per time unit does the maximum temperature occur: \_\_\_\_\_

How long does the maximum temperature occur: \_\_\_\_\_

What medium transfers the temperature: \_\_\_\_\_

Please sketch the temperature flow



Which movement and load occurs simultaneous with the heat exposure:

Radial load:

- none
- permanent as at 10.1.
- maximum as at 10.1.
- other: \_\_\_\_\_ N

Axial load:

- none
- permanent as at 10.2.
- maximum as at 10.2.
- other: \_\_\_\_\_ N

Movement

Rotation

- none
- permanent as at 11.1.
- maximal wie unter 11.1.
- other: \_\_\_\_\_ N

Translation

- none
- permanent as at 11.1.
- maximum as at 11.1.
- other: \_\_\_\_\_ N

Oszillation

- none
- permanent as at 11.2.
- maximum as at 11.2.
- other: \_\_\_\_\_ N



**13. Working life:**

wished working life: \_\_\_\_\_ h

permissible clearance increase

How often per time unit does the max. Temperature on:

max. radial clearance after \_\_\_\_\_ hours of operation \_\_\_\_\_ mm

max- axial clearance after \_\_\_\_\_ hours of operation \_\_\_\_\_ mm

**14. Miscellaneous:**

Special material wishes: \_\_\_\_\_

Additional conditions to be served: \_\_\_\_\_

*The more information you give to us by this questionnaire, the more precise solution we can work out for your application*

**- Please add a representation or a sketch of your application -**

AGM:

KM:

KO: