


## Load capacity:

The load capacity of the ball bearing is specified as load rating C in daN and tested under following conditions:

- 200 mm roller length (short roller)
- axis fixed restrained
- rotarional speed $100 \mathrm{~min}^{-1}-200 \mathrm{~min}^{-1}$
- 1.000 .000 revolutions (load change)


## Service life:

From the load capacity the service life of the ball bearing could be calculated with following formula:
$L h=\frac{1000000}{60 \times n}\left(\frac{C}{P}\right)^{p}$
Herein are:
Lh : nominal service life [h]
C : dynamic load rating [ N ]
$\mathrm{n}: \quad$ revolutions [ $\mathrm{min}^{-1}$ ]
$\mathrm{P}: \quad$ dynamic bearing load $[\mathrm{N}]$
( $\mathrm{P}=\mathrm{C}$ in case of radial load only)
p : exponent of service life equation
(for ball bearing is considered $\mathrm{p}=3$ )

## Plastics:

Polypropylen (PP)

- good mechanical characteristic
- excellent shock resistance

Polyacetal (POM)

- high hardness and stiffness
- low absorbtion of humidity
- good friction and abrasion characteristic

Polyamid (PA)

- tenacious/rigid
- very good mechanical characteristic and abrasion resistance

Antistatic Plastics

- PP
- POM

The use of antistatic plastics is only premissible in the provided temperature range. We can not give any guarantee for the conductivity.
Attention: Do not use in explosion-proofed areas !!!

## Affecting conditions:

Under different conditions the roller manufacturer has to determine the real new load capacity of the roller by himself. Kindly note that the service life and the load capacity of your roller will be determined by:

- roller length
- axis diameter
- style of the axis
- environment influences

Influence of the roller length for the load rating:


## Lubricants:

Our ball bearings are equipped with high quality lubricants. Furthermore our special greases and oils can reach a temperature range from $-35^{\circ} \mathrm{C}$ to $+180^{\circ} \mathrm{C}$. Our tested lubricants are best prooved for many years under every conditions. In a given case please ask for the optimal lubricants recommended by MARKES..















KTR -.00/. 01 FA

| Type | Normal | Stainless |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{. 0 1}$ | $\mathbf{D i}+\mathbf{0 , 2 5}$ | $\mathbf{D a}$ | $\mathbf{d}$ | Load Rating <br> C [daN] |  |  |
| KTR-20 $\mathbf{~ [ 1 , 5 ~}$ | x | x | 17,1 | 19,9 | 6 | 8 |
| KTR-30 $\mathbf{1 , 8}$ | x | x | 26,5 | 29,9 | 8 | 10 |
| KTR-40x2,3 | x | x | 35,5 | 39,9 | 8 | 10 |
| KTR-50x2,8 | x | x | 44,6 | 49,9 | 10 | 15 |

Other dimensions on request!
C Housing: Plastic
© Inner Race: Plastic

- Ball Cage: Plastic

C Shaft: Plastic
© Bearing Flange: Plastic

- Ball, Spring

C 00: Steel
© 01: 1.4034















KTR-43/ 44


C [daN]
150

| KTR-43/44 |  |  |  |
| :--- | :---: | :---: | :---: |
| Type | Di +0,2 | Da | Load Rating <br> C [daN] |
| KTR-63,5×2,9.43/.44 | 58,0 | 63,4 | 150 |
| KTR-80×2,0.43/.44 | 76,4 | 79,9 | 150 |

## Other dimensions on request!

© Housing: Plastic
© M ultiple Labyrinth Seal: Plastic
© Bearing 6303/ 6204



EP 2

































C [daN]

| KKR-40 |  |  |
| :--- | :---: | :---: |
|  | d | H |
| KKR-40 | 10 | 19 |
| KKR-40 | 12 | 18 |
| KKR-40 | 14 | 19 |
| KKR-40 | SW 11 | 19 |

Other dimensions on request!
© Reducing Bush: Plastic




C [daN]

| KKR-40 |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Typ | Di | Da | di | da | H | $\mathbf{h}$ |
| $50 \times 1,5$ | 47,25 | 50 | 39,3 | 42,6 | 25,2 | 5 |
| $50 \times 2,8$ | 44,7 | 50 | 39,3 | 42,6 | 25,2 | 5 |
| $60 \times 1,5$ | 57,3 | 60 | 47,0 | 50,7 | 25,5 | 5 |
| $60 \times 2,0$ | 56,3 | 60 | 47,0 | 50,7 | 25,5 | 5 |

Other dimensions on request!
c Distance Ring Fix: Plastic


-


C arton [pcs.]
ø50:
$\varnothing 60$ :
400
250

## Distance Ring Fix




C [daN]

KKR-40

| Typ | Di | Da | di | da | H | $\mathbf{h}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| $50 \times 1,5$ | 47,2 | 50 | 40,6 | 44,6 | 25 | 5 |
| Other dimensions on request! |  |  |  |  |  |  |

© Distance Ring Friction: Plastic


## Distance Ring Friction
















## Dear Customer.

Are you unable to find what you need in our extensive range of products? Or do you need a special version for a specific application?
To enable the preparation of an offer that is tailored to your needs you are kindly requested to answer the following questions:

## Ball bearing assemblies:

Product in chapter / on page: $\qquad$
Deviating dimensions, version:
$\qquad$
Carrying capacity:
Number of revolutions: $\qquad$
Further requirements: $\qquad$

| Alternative materials are permissible? | O YES O NO |
| :--- | :--- |
| Variants are planned? | O YES O NO |

O YES O NO

## By Fax: +49 (0)2353 66985-98 By Mail: info@markes.de

Kindly enclose a drawing or sketch with your request for quotation - if available.

## Particulars:

Planned annual volume?
Call-off quantities?
O Non-recurrent requirement O Permanent requirement
Type of packaging?
Packing unit?
$\qquad$
Customer specific test specifications have to be respected?
O YES O NO
If YES, please specify? $\qquad$

## Metal part:

Specified material?
Surfaces?
Hardening and/or tempering? $\qquad$
Raw edge/direction of punching? $\qquad$
Absence of burr is required? O YES O NO
Appearance standards?
Further requirements (customer logo, etc.)?

Further requirements (customer logo, etc.)?

Alternative materials are permissible?
Variants are planned?

## O YES O NO

O YES O NO

## Plastic part:

Specified material?

Antistatic treatment is required? O YES O NO
Treatment for contact with foodstuffs is required?
O YES O NO
Specified colour?
Specified surface?
Appearance standards?

|  |  |
| :--- | :--- |
| Alternative materials are permissible? | O YES O NO |
| Variants are planned? | O YES O NO |

