

# ISB TSF.R 20 plain bearings

ISB TSF.R 20 plain bearings 19x7x6 Size (mm) Engineering Calculator , Manufacturing Service . Get Your Free.

Size (mm)	19x7x6
Bore Diameter (mm)	19
Outer Diameter (mm)	7
Width (mm)	6
d	7 mm
D	19 mm
B	6 mm
d1	10.8 mm
d2	10.8 mm
D1	15.2 mm
r1,2 – min.	0.3 mm
r3,4 – min.	0.15 mm
a	4.8 mm
da – min.	9 mm
db – min.	9 mm
Da – max.	17 mm
Db – max.	18.2 mm
ra – max.	0.3 mm
rb – max.	0.15 mm
dn	11.7 mm
Basic dynamic load rating – C	2.5 kN
Basic static load rating – C0	0.98 kN
Fatigue load limit – Pu	0.04 kN
Limiting speed for grease lubrication	100000 r/min

Limiting speed for oil lubrication	160000 mm/min
Ball – Dw	3.572 mm
Ball – z	8
Gref	0.12 cm <sup>3</sup>
Calculation factor – f <sub>0</sub>	8.1
Preload class A – GA	8 N
Preload class B – GB	15 N
Preload class C – GC	30 N
Preload class D – GD	60 N
Calculation factor – f	1
Calculation factor – f <sub>2A</sub>	1
Calculation factor – f <sub>2B</sub>	1.02
Calculation factor – f <sub>2C</sub>	1.05
Calculation factor – f <sub>2D</sub>	1.09
Calculation factor – f <sub>HC</sub>	1
Preload class A	9 N/micron
Preload class B	11 N/micron
Preload class C	15 N/micron
Preload class D	22 N/micron
r <sub>1,2</sub> min.	0.3 mm
r <sub>3,4</sub> min.	0.15 mm
d <sub>a</sub> min.	9 mm
d <sub>b</sub> min.	9 mm
D <sub>a</sub> max.	17 mm
D <sub>b</sub> max.	18.2 mm
r <sub>a</sub> max.	0.3 mm
r <sub>b</sub> max.	0.15 mm
Basic dynamic load rating C	2.51 kN
Basic static load rating C <sub>0</sub>	0.98 kN

Fatigue load limit $P_u$	0.04 kN
Attainable speed for grease lubrication	100000 r/min
Attainable speed for oil-air lubrication	160000 r/min
Ball diameter $D_w$	3.572 mm
Number of balls $z$	8
Reference grease quantity $G_{ref}$	0.12 cm <sup>3</sup>
Preload class A $G_A$	8 N
Static axial stiffness, preload class A	9 N/ $\mu$ m
Preload class B $G_B$	15 N
Static axial stiffness, preload class B	11 N/ $\mu$ m
Preload class C $G_C$	30 N
Static axial stiffness, preload class C	15 N/ $\mu$ m
Preload class D $G_D$	60 N
Static axial stiffness, preload class D	22 N/ $\mu$ m
Calculation factor $f$	1.03
Calculation factor $f_1$	1
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.02
Calculation factor $f_{2C}$	1.05
Calculation factor $f_{2D}$	1.09
Calculation factor $f_{HC}$	1
Calculation factor $f_0$	8.1
Mass bearing	0.008 kg