

# DIN ISO 20056-2:2019-07 (E)

## Rolling bearings - Load ratings for hybrid bearings with rolling elements made of ceramic - Part 2: Static load ratings (ISO 20056-2:2017)

---

<b>Contents</b>		<b>Page</b>
National foreword .....		3
National Annex NA (informative) Bibliography .....		4
Foreword .....		5
Introduction .....		6
1	Scope .....	7
2	Normative references .....	7
3	Terms and definitions .....	7
4	Symbols .....	8
5	Static load rating .....	9
5.1	General .....	9
5.2	Basic static radial load rating of radial ball bearings .....	9
5.3	Basic static axial load rating of thrust ball bearings .....	10
5.4	Basic static radial load rating of radial roller bearings .....	11
5.5	Basic static axial load rating of thrust roller bearings .....	11
5.6	Discontinuities in load ratings .....	11
5.7	Consideration of special material properties .....	11
6	Static equivalent load .....	11
6.1	General .....	11
6.2	Radial ball bearings .....	11
6.3	Thrust ball bearings .....	11
6.4	Radial roller bearings .....	11
6.5	Thrust roller bearings .....	11
7	Static safety factor .....	12
Annex A (informative) Calculation of the Hertzian parameters for point contact .....		13
Annex B (informative) Guide values of the factor $f_0$ for ball bearings .....		14
Annex C (informative) Discontinuities in the calculation of basic static load ratings .....		16
Annex D (informative) Material properties and material classification .....		17
Bibliography .....		19
Figures Figure D.1 -- Examples of typical current application areas for the different material classes and ball grades (arrows indicate potential overlap) .....		18
Tables Table 1 -- Guideline values of static safety factor $S_0$ for hybrid ball bearings .....		12
Table 2 -- Guideline values of static safety factor $S_0$ for hybrid roller bearings .....		12

<b>Table B.1 -- Guide values of factor <math>f_0</math> for ball bearings .....</b>	<b>14</b>
<b>Table D.1 -- Correction factor for rolling elements made of ceramic with different elastic .....</b>	<b>18</b>