



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 39743-2021

**Plain bearings - Thermoplastic bushes - Dimensions and
tolerances**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard adopts the translation method equivalent to ISO 16287.2005 "Sliding Bearing Thermoplastic Bushing Dimensions and Tolerances".

The Chinese documents that have a consistent correspondence relationship with the normatively cited international documents in this standard are as follows.

---GB/T 1800.1-2020 Product Geometric Technical Specification (GPS) Linear Dimension Tolerance ISO Code System Part 1.

The basis of tolerances, deviations and fits (ISO 286-1.2010, MOD)

---GB/T 12613.1-2011 Rolled sleeves of sliding bearings Part 1.Dimensions (ISO 3547-1.2006, IDT)

---GB/T 12613.2-2011 Rolled sleeves of sliding bearings Part 2.Test data of outer and inner diameters (ISO 3547-2.

2006, IDT)

---GB/T 23893-2009 Classification and marking of thermoplastic polymers for sliding bearings (ISO 6691.2000, IDT)

---GB/T 27939-2011 Quality control technology and inspection of sliding bearing geometry

and material quality characteristics (ISO 12301.

2007, IDT)

---GB/T 35087-2018 Sliding bearing bushing lubricating oil hole, oil groove and oil pocket size, type, marking and application

(ISO 12128.2001, IDT)

Compared with ISO 16287.2005, this standard has made the following editorial changes.

---Modified the wrong form of the section lines in Figure 1, Figure 2 and Figure 3;

--- Change the dimension mark " $\leq B$ " of the axial width of the bearing seat hole in Figure 3a) to " $\geq B$ ", the original text is incorrectly marked;

--- Change the dimension mark of the axial width of the bearing seat hole in Figure 3b) " $\leq B$ " to " $\geq (B-B_{fl})$ ", the original text is incorrectly marked;

---Added the informative appendix NA "Modified Thermoplastic Injection Molded Bushing Dimensions and Tolerances", and added relevant in the scope

Description.

This standard was proposed by the China Machinery Industry Federation.

This standard is under the jurisdiction of the National Sliding Bearing Standardization Technical Committee (SAC/TC236).

Drafting organizations of this standard. China Machinery Productivity Promotion Center, Zhejiang Changsheng Sliding Bearing Co., Ltd., Shanghai Institute of Materials, Zhejiang Double

Feiwu Oil Bearing Co., Ltd., Zhejiang Zhongda Precision Components Co., Ltd., Hefei Bolin New Materials Co., Ltd., Jiashan Sanfu

Sliding Bearing Co., Ltd.

This standard is interpreted by the National Standardization Technical Committee for Sliding Bearings.

Sliding bearing thermoplastic sleeve

Dimensions and tolerances

1 Scope

This standard specifies the dimensions and specifications of press-in thermoplastic bushings with or without lubricating oil grooves produced in accordance with ISO 12128.

difference. Thermoplastic bushings produced according to Table 2 and Table 3 and rolled

bushings produced according to ISO 3547-1 are mutually compatible in size.

Changed.

This standard does not apply to reinforced plastic shaft sleeves.

Note. Appendix NA gives the dimensions and tolerances of the modified thermoplastic injection molding bushing.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated reference documents, the latest version (including all amendments) is applicable to this document.

ISO 286-1 ISO Limits and Fit System Part 1.Tolerances, Deviations and Basis of Fit (ISO system of limits and

fits-Part 1.Basesoftolerance, deviationsandfits)

ISO 554 Standard environmental specifications for conditioning and/or testing (Standard atmospheres for conditioning and/or

testing-Specifications)

ISO 3547-1 Plain bearing-Wrapped bushes-Part 1.Dimensions
(Plainbearings-Wrappedbushes-Part 1.

Dimensions)

ISO 3547-2.1999 Rolled sleeves of plain bearings Part 2.Test data of outer and inner diameters (Plainbearings-

Wrappedbushes-Part 2.Testdataforoutsideandinsidediameter)

ISO 6691 Classification and marking of thermoplastic polymers for sliding bearings
(Thermoplasticspolymersforplain

bearings-Classificationandddesignation)

ISO 12128 sliding bearing bushing lubricating hole, oil groove and oil pocket size, type, marking and application (Plainbearings-

Lubricationholes,groovesandpockets-Dimensions,types,designationandtheirapplicationtobe ar-

ingbushes)

ISO 12301 Plainbearings-Quality Quality Control Technology and Inspection

(Plainbearings-Quality

controltechniquesandinspectionofgeometricalandmaterialqualitycharacteristics)

3 symbols

The following symbols apply to this document.

B Bushing width

Bfl flange thickness

Ci inner chamfer

Co outer chamfer

Dfl flange diameter

DH bearing seat hole diameter

Di shaft sleeve inner diameter

Di,ch The inner diameter of the bushing after being pressed into the ring gauge with tolerance class H7

Do shaft sleeve outer diameter size

r Flange sleeve fillet radius

4 Dimensions and tolerances

According to the distinction between cylindrical bushings (C type) and flange bushings (F type), the dimensions and tolerances of the thermoplastic bushings shown in Figure 1 and Figure 2

Given in Table 1, Table 2, Table 3 and Table 4, the unit is mm. The surface roughness indicated by x and y in Figure 1 and Figure 2 are given in Table 5.

The coaxiality tolerance value of the outer diameter Do can be determined by checking the standard tolerance value (see ISO 286-1).

The tolerance value of the end face circle runout of the flange diameter Dfl can be determined by checking the standard tolerance value (see ISO 286-1).

Table 4 Nominal dimensions and limit deviations of F-type thin-walled flange bushings for width B conforming to ISO 3547-1

Inner diameter Di

Nominal

size