INTERNATIONAL STANDARD

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Second edition
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# Plain bearings — Thermoplastic bushes — Dimensions and tolerances

*Paliers lisses — Bagues thermoplastiques — Dimensions et tolérances*



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# Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.



This document was prepared by Technical Committee ISO/TC 123, *Plain bearings*, Subcommittee SC 7, *Special types of plain bearings*.

This second edition cancels and replaces the first edition (ISO 16287:2005), which has been technically revised. The main changes compared to the previous edition are as follows:



— Clause 3, “Terms and definitions”, has been added;

— Figures 2 and 3 have been revised.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

# Plain bearings — Thermoplastic bushes — Dimensions and tolerances

## 1 Scope

This document specifies the dimensions and tolerances for inserted thermoplastic bushes used as plain bearings with or without lubrication grooves in accordance with ISO 12128. These thermoplastic bushes are dimensionally exchangeable to wrapped bushes according to ISO 3547-1.

This document is not applicable to reinforced plastics.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 554, *Standard atmospheres for conditioning and/or testing — Specifications*

ISO 3547-2, *Plain bearings — Wrapped bushes — Part 2: Test data for outside and inside diameters*

ISO 6691, *Thermoplastics polymers for plain bearings — Classification and designation*



## 3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:



— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

## 4 Symbols

| | |
|---|---|
| $B$ | nominal width of bush |
| $B_{fl}$ | flange thickness |
| $C_i$ | inside chamfer |
| $C_o$ | outside chamfer |
| $D_{fl}$ | flange diameter |
| $D_H$ | nominal housing bore diameter |
| $D_i$ | nominal inside diameter of the bush |
| $D_{i,ch}$ | inside diameter of the bush when inserted in a ring gauge middle H7 |
| $D_o$ | nominal outside diameter of the bush |
| $r$ | radius for flange bushes |

## 5 Dimensions

The dimensions and tolerances of the thermoplastic bushes are shown in Figures 1 and 2, according to whether cylindrical (type C) or flanged (type F), and given, in millimetres, in Tables 1, 2, 3 and 4. The surface finishes *x* and *y* represented in Figures 1 and 2 are given in Table 5.

For the determination of the IT value (see ISO 286-1) of the coaxiality tolerance, the dimensions of $D_o$ are applicable.

For the determination of the IT value (ISO 286-1) of the axial run-out tolerance, the dimensions of $D_{fl}$ are applicable.

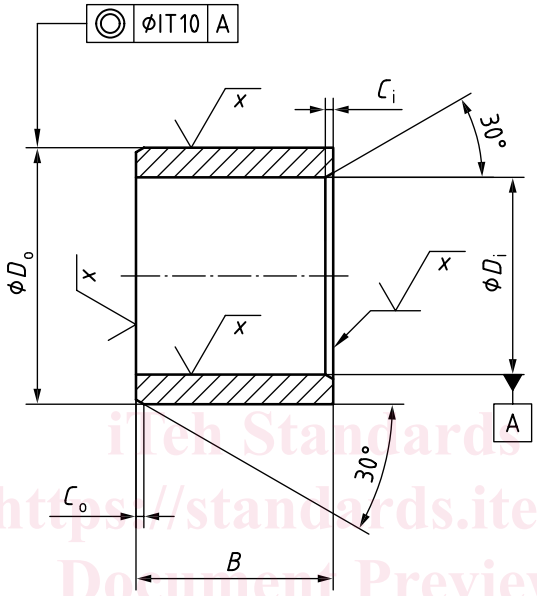




**Figure 1 — Cylindrical bush**



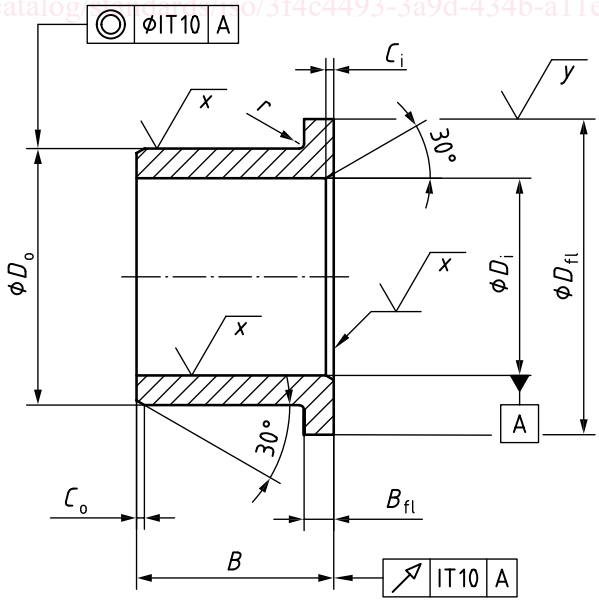


**Figure 2 — Flanged bush**