
**Plain bearings — Bearings containing
dispersed solid lubricants**

Paliers lisses — Paliers contenant des lubrifiants solides dispersés



This document is a preview generated by EBS



COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and units	1
5 Characteristics	1
5.1 Structure	1
5.2 Bearing characteristics	2
5.3 Applicable field	3
6 Material	3
6.1 Metal matrix	3
6.2 Solid lubricant	4
6.3 Combination of metal matrix and solid lubricant	4
7 Dimension	5
7.1 General	5
7.2 General dimension	5
7.2.1 Seamless bush	5
7.2.2 Wrapped bush	7
7.3 Tolerance classes and limit deviations	7
7.3.1 General	7
7.3.2 Housing fit	7
7.3.3 Shaft clearance	7
8 Assembling	8
9 Surface finish	8
Annex A (informative) Guide for selection of a bearing metal matrix for bearings containing dispersed solid lubricants	9
Annex B (informative) Actual applications of a bearing containing dispersed solid lubricants	10
Bibliography	11

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on 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 the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 123, *Plain bearings*, Subcommittee SC 7, *Special types of plain bearings*.

Plain bearings — Bearings containing dispersed solid lubricants

1 Scope

This document specifies a bearing containing dispersed solid lubricants which is used as a solid lubricant bearing.

NOTE In the solid lubricant bearing among self-lubricating bearings there is a solid type, a coated type, an embedded type and a dispersed type, which is specified by this document.

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 3547-1, *Plain bearings — Wrapped bushes — Part 1: Dimensions*

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:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4 Symbols and units

See Table 1.

Table 1 — Symbols and units

Symbol	Description	Unit
B	Width of the bush	mm
D_i	Inside diameter of the bush	mm
D_o	Outside diameter of the bush	mm

5 Characteristics

5.1 Structure

A bearing containing dispersed solid lubricants is made of sintered composite materials that contain solid lubricants dispersed uniformly in the metal matrix and is manufactured by powder metallurgy (see Figure 1).

This document includes multi-layered bearings with the sintered layer on a steel backing and both seamless and wrapped bushes (see Figure 2).