
Plain bearings — Wrapped bushes —

**Part 4:
Materials**

Paliers lisses — Bagues roulées —

Partie 4: Matériaux

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

ISO 3547-4:2017

<https://standards.iteh.ai/catalog/standards/iso/f124da3a-30c4-4503-b8ff-bf34817046e8/iso-3547-4-2017>



iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

ISO 3547-4:2017

<https://standards.iteh.ai/catalog/standards/iso/f124da3a-30c4-4503-b8ff-bf34817046e8/iso-3547-4-2017>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2017, 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	Requirements	1
4.1	Chemical analysis	1
4.2	Hardness values	2
Bibliography		5

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

<https://standards.iteh.ai/catalog/standards/iso/f124da3a-30c4-4503-b8ff-bf34817046e8/iso-3547-4-2017>

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 WTO principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 123, *Plain bearings*, Subcommittee SC 3, *Dimensions, tolerances and construction details*.

This third edition cancels and replaces the second edition (ISO 3547-4:2006), which has been technically revised.

A list of all the parts in the ISO 3547 series can be found on the ISO website.

Plain bearings — Wrapped bushes —

Part 4: Materials

1 Scope

This document gives specifications for solid and multi-layer bearing materials, such as those used for wrapped bushes in accordance with the other parts of ISO 3547.

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:—¹⁾, *Plain bearings — Wrapped bushes — Part 1: Dimensions*

ISO 4378-1, *Plain bearings — Terms, definitions, classification and symbols — Part 1: Design, bearing materials and their properties*

ISO 4378-4, *Plain bearings — Terms, definitions, classification and symbols — Part 4: Basic symbols*

ISO 4382-2, *Plain bearings — Copper alloys — Part 2: Wrought copper alloys for solid plain bearings*

ISO 4383, *Plain bearings — Multilayer materials for thin-walled plain bearings*

ISO 4384-1, *Plain bearings — Hardness testing of bearing metals — Part 1: Multilayer bearings materials*

ISO 4384-2, *Plain bearings — Hardness testing of bearing metals — Part 2: Solid materials*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4378-1 and ISO 4378-4 apply.

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

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

4 Requirements

4.1 Chemical analysis

Chemical analysis shall be definitive for the acceptance of the bearing metals. Arbitrary analyses or random sampling operations shall be performed in accordance with recognized methods and agreed between the supplier and user.

1) Under preparation. Stage at the time of publication: ISO/DIS 3547-1:2016.

4.2 Hardness values

The hardness values indicated in [Tables 1](#) and [2](#) are typical for each of the materials concerned. In practice, composition and processing variables can result in significant variations in hardness. Hardness specifications shall be agreed between the supplier and user.

Table 1 — Solid materials

Key	Designation ^a	Hardness ^b (guide values) HB 2,5/62,5/10	Notes related to application	Wall thickness tolerance series ^c
Z1	Steel (hardened)	—	Suitable for secondary applications with lightly loaded sliding characteristics.	A
Y1	CuSn8P	120	Very high load capacity, good antifrictional property, e.g. for vehicles, transmissions, conveyor systems and agricultural machinery.	A, C, W
Y2		150		
W1	CuZn31Si	110	High load capacity, good antifrictional properties, e.g. for textile machinery, motor vehicles and agricultural machinery and lifts.	
W2		140		
^a Steel composition shall be agreed between the supplier and user. It will normally have a carbon content of less than 0,25 %; composition of bearing material in accordance with ISO 4382-2.				
^b Hardness testing in accordance with ISO 4384-2.				
^c In accordance with ISO 3547-1:—, Tables 5 and 6.				

ITeH Standards
 (https://standards.iteh.ai)
 Document Preview

[ISO 3547-4:2017](#)

<https://standards.iteh.ai/catalog/standards/iso/f124da3a-30c4-4503-b8ff-bf34817046e8/iso-3547-4-2017>