BS ISO 4378-3:2024

BSI Standards Publication

# Plain bearings — Terms, definitions, classification and symbols

Part 3: Lubrication

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# National foreword

This British Standard is the UK implementation of ISO 4378-3:2024. It supersedes BS ISO 4378-3:2017, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee MCE/12, Plain bearings.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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## Part 3: Lubrication

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# 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 document 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 6, *Terms and common items.*

This fourth edition cancels and replaces the third edition (ISO 4378-3:2017), which has been technically revised.

The main changes are as follows:

— editorial revision of the document: instead of referring to the parts in the figure by subclause number, the part numbers have been used and the names in the key have been shown.

— addition of alphabetical index.

A list of all parts in the ISO 4378 series can be found on the ISO website.

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.

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# Introduction

As there is a large number of multiple designations in the domain of plain bearings, there is a considerable risk of error in the interpretation of standards and technical literature.

This document is an attempt to establish a uniform basic system of designations of lubrication.

in addition, this document is specifically intended for the field of plain bearings the content can be adopted in general to the field of tribology and being adopted to other machinery elements.

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# Plain bearings — Terms, definitions, classification and symbols —

# Part 3: Lubrication

## 1 Scope

This document specifies the most commonly used terms relating to lubrication of plain bearings with their definitions and classification.

For some terms and word combinations, their short forms are given, which can be used where they are unambiguous.

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

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 https://www.electropedia.org/

### 3.1 General terms

**3.1.1**
**lubrication**
technique to reduce friction force, wear and deterioration of the surfaces of two bodies in contact and in relative motion due to the action and effect of lubricant

**3.1.2**
**method of lubrication**
method of supplying lubricant into the space between two bodies in contact and in relative motion

### 3.2 Terms related to the types of lubrication and classification

#### 3.2.1 Classification according to physical state of the lubricant

**3.2.1.1**
**gas-film lubrication**
*lubrication* (3.1.1) in which the interacting surfaces in relative motion are separated by a gaseous lubricant

**3.2.1.2**
**liquid-film lubrication**
*lubrication* (3.1.1) in which the interacting surfaces in relative motion are separated by a liquid lubricant

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