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

GB/T 18449.4-2022

**Metallic materials - Knoop hardness test - Part 4: Tables of
hardness values**

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Table of Contents

foreword

Introduction

1 Scope

2 Normative references

3 Terms and Definitions

4 Knoop hardness table

foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules of Standardization Documents" drafted.

This document is part 4 of GB/T 18449 "Knoop Hardness Test for Metallic Materials". GB/T 18449 has issued the following

part.

- Part 1. Test methods;
- Part 2. Inspection and calibration of hardness testers;
- Part 3. Calibration of standard hardness blocks;
- Part 4. Table of hardness values.

This document replaces GB/T 18449.4-2009 "Knoop Hardness Test for Metallic Materials Part 4. Table of Hardness Values", and

Compared with GB/T 18449.4-2009, in addition to structural adjustment and editorial changes, the main technical changes are as follows.

- Delete the calculation formula of Knoop hardness value (see Chapter 3 of the 2009 edition);
- Increased the hardness values of HK0.001, HK0.002, HK0.005 and HK2 scales (see Table 1).

This document is identical to ISO 4545-4:2017 "Knoop Hardness Test for Metallic Materials Part 4. Table of Hardness Values".

Please note that some content of this document may be patented. The issuing agency of

this document assumes no responsibility for identifying patents.

Introduction

GB/T 18449 "Knoop Hardness Test of Metallic Materials" aims to standardize the test method of Knoop hardness of metallic materials, the inspection and calibration of hardness testers

Standard, standard hardness block calibration and hardness value and so on.

GB/T 18449 consists of four parts.

- Part 1. Test methods;
- Part 2. Inspection and calibration of hardness testers;
- Part 3. Calibration of standard hardness blocks;
- Part 4. Table of hardness values.

This document provides a comparison table between the diagonal length of indentation under 0.009807N~19.613N and the corresponding Knoop hardness value, which is convenient for standard application.

User access and use.

Knoop hardness test of metal materials

Part 4. Table of hardness values

1 Scope

The table of hardness values given in this document applies to the Knoop hardness test in accordance with ISO 4545-1.

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations

documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to

this document.

ISO 4545-1 Knoop Hardness Tests for Metallic Materials Part 1. Test Methods
(Metallic materials-Knoop

hardness test-Part 1. Test method)

Note. GB/T 18449.1-2009 Knoop hardness test of metallic materials Part 1. Test method

(ISO 4545-1.2005, MOD)

3 Terms and Definitions

There are no terms and definitions that need to be defined in this document.

4 Knoop hardness table

Table 1 gives a table of Knoop hardness values calculated according to the ISO 4545-1 Knoop hardness formula.