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Vickers hardness test—
Part 1: Test method

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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Foreword

This Japanese Industrial Standard has been established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal for establishment of Japanese Industrial Standard submitted by The Japan Iron and Steel Federation (JISF) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act. This Standard partially replaces **JIS Z 2244**:2009, which has been withdrawn.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, published patent application or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, published patent application or utility model rights.

JIS 2244 series consists of the following 2 parts under the general title *Vickers hardness test*:

Part 1: Test method

Part 2: Tables of hardness values

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Vickers hardness test—Part 1: Test method

Introduction

This Japanese Industrial Standard has been prepared based on **ISO 6507-1**:2018, Edition 4, with some modifications of the technical contents.

The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JA.

1 Scope

This Standard specifies the Vickers hardness test method for the three different ranges of test force for metallic materials including hardmetals and other cemented carbides (see Table 1).

Table 1 Ranges of test force

Ranges of test force, F N	Hardness symbol	Designation
$F \geq 49.03$	≥ HV 5	Vickers hardness test
$1.961 \leq F < 49.03$	HV 0.2 to < HV 5	Low-force Vickers hardness test
$0.009\,807 \leq F < 1.961$	HV 0.001 to < HV 0.2	Vickers microhardness test

The Vickers hardness test specified in this Standard is for lengths of indentation diagonals between 0.020 mm and 1.400 mm; it may be used for lengths of indentation diagonals < 0.020 mm and/or test force of < 0.009 807 N upon agreement between the parties involved.

A periodic verification method is specified for routine checking of the testing machine in service by the user.

For specific materials and/or products, particular standards exist.

NOTE 1 Using the method specified in this Standard for determination from indentations < 0.020 mm in diagonal length may cause large uncertainties in the results.

NOTE 2 The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 6507-1:2018 *Metallic materials—Vickers hardness test—Part 1: Test method* (MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.