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

GB/T 4341-2001

Replacing GB/T 4341-2001

**Metallic materials -- Shore hardness test -- Part 1: Test method
(English Translation)**

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Foreword

This section drafted in accordance with GB/T 1.1-2009 given rules.

This Part replaces GB/T 4341-2001 "Metal Shore hardness test methods", compared with the GB/T 4341-2001, the main technical change of the following.

--- Modify the standard name;

--- Increased in Chapter 2, normative references to the corresponding reference standard (see Chapter 2, 2001 edition of Chapter 2);

--- Increased provisions "results measurement uncertainty" (see Chapter 8);

--- Increasing the normative Appendix A "user of daily inspection of hardness";

--- Increase the informative Appendix B "Shore hardness test results of measurement uncertainty." this part is proposed by the China Iron and Steel Association.

This part of the National Steel Standardization Technical Committee (SAC/TC183) centralized.

This section is drafted. Iron and Steel Research, Metallurgical Industry Information Standards Institute.

1 Scope

This section GB/T 4341 specifies the principles of a metallic material Shore hardness test methods, symbols and instructions, hardness, sample test Program, and the uncertainty of the test report test results.

This section applies to a Shore hardness test range 5HS ~ 105HS, divided into C type (visual type) and D (Indicating).

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 8170 repair value expressed about the rules and limit values
JJG346 Shore hardness tester JJG347 standard Shore hardness block

3 Test principle

A predetermined shape diamond punch from a predetermined height of free fall impact of the sample surface, in order to punch the first bounce height h and punch down the ratio is calculated at the height h_0 Shore hardness see equation (1).

$$HS = K$$

Where.

HS --- Shore hardness;

K --- Shore hardness coefficient (C-type apparatus $K = 104/65$, D-type instrument $K = 140$);

h --- punch first bounce height, in millimeters (mm);

h_0 --- punch fall height in millimeters (mm).

4 Symbol and description

Shore hardness symbol HS, HS behind the symbol durometer type.

Example 1.

25HSC represented by C-type (visual type) Shore hardness tester Shore hardness value of 25.

Example 2.

51HSD expressed D type (Indicating) Shore hardness tester Shore hardness value of 51.

5 Durometer

The main technical parameters 5.1 Shore hardness in Table 1.