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

GB/T 38119-2019

Verification of Shore durometers

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the translation method equivalent to ISO 21509.2006 "Test of plastic and hard rubber Shore hardness tester".

The documents of our country that have a consistent correspondence with the international documents referenced in this standard are as follows.

---GB/T 2918-2018 Standard environment for conditioning and testing of plastic samples (ISO 291.2008, MOD)

This standard has made the following editorial changes.

--- Change the standard name to "Test of Shore Hardness Tester".

This standard was proposed by the China Machinery Industry Federation.

This standard is under the jurisdiction of the National Testing Machine Standardization Technical Committee (SAC/TC122).

This standard was drafted. China Machine Testing Equipment Co., Ltd., Shanghai Metrology and Testing Technology Research Institute, Guangzhou University, German Business Bo Ruiyi

(Shanghai) Co., Ltd., Quanzhou Fengze Donghai Instrument Hardness Block Factory, Shanghai Liuling Instrument Factory, Shenzhen Huajian Testing Co., Ltd.

1 Scope

This standard specifies the inspection methods for Type A and Type D Shore Durometers used for hardness testing in accordance with the method described in GB/T 2411.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 2411-2008 Plastics and hard rubbers using a durometer to determine indentation hardness (Shore hardness) (ISO 868.2003, IDT)

Standard environment for ISO 291 plastic specimen conditioning and testing
(Plastics-Standardatmospheresfor
Conditioningandtesting)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Inspection verification

To determine the hardness tester to meet all the requirements of this standard.

3.2

Hardness tester

An instrument for measuring hardness by pressing a needle into a test material.

4 measuring instruments and inspection temperature

The test methods described in this standard require the use of both length gauges and force gauges.

Note. Generally, the measurement uncertainty should be 1/5 of the tolerance of the detected value.

It should be tested at room temperature of 21 ° C ~ 25 ° C. For the tropical region, if it is agreed by the parties concerned, it can be in the room of 25 ° C ~ 29 ° C

Test under temperature (see ISO 291).

5.1 Test items

---The geometry of the needle;

---The maximum amount of protrusion of the pressing pin to the bottom of the pressing foot;

- The geometry of the foot;
- The scale of the indicating device;
- The force applied by the measuring spring to the pressure pin.

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