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

GB/T 10623-2008

Replacing GB/T 10623-1989

Metallic material -- Mechanical testing -- Vocabulary

金属材料 力学性能试验术语

(English Translation)

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Foreword

This revised standard adopts ISO 23718:2007 "test the mechanical properties of metallic materials the term" (in English). The main technical content with the same, but more detailed and specific, write structure does not correspond exactly. Also refer to the United States ASTM E06-03 "Mechanical tests on standard operation the term "and ASTM E1823-05" fatigue and fracture tests of the standard terminology, "the two standards.

This standard is based on ISO 23718:2007 redrafted in order to facilitate comparison, in Appendix A lists the provisions of the present national and international standards Control list of standard terms.

As China's actual needs, the standard at the time of adoption of international standards has been modified. The technical differences between a single vertical line labeled Knowledge involved in their terms of margin. It gives a list of the technical differences and their reasons in Appendix B for control.

For ease of use, this standard made the following editorial changes.

--- "This International Standard" be replaced by "this standard";

--- With a decimal point instead of a comma as the decimal point, "";

--- Remove the foreword and introduction of international standards.

This standard replaces GB/T 10623-1989 "test the mechanical properties of metals term." this standard and GB/T 10623-1989, compared with significant amendments and supplements in the following aspects.

---range;

--- General terms the former standard 49 reduced to 24;

--- Uniaxial testing standard generic term consolidation of the original terms of tension and compression test, creep, stress relaxation and creep rupture strength and torsional Term test, the former standard of 67 was reduced to 53;

--- Ductility test generic term corresponding to the term of the original technology test standard from the original 32 was reduced to 19;

--- Hardness test standard generic term for the original increase of 18 to 27;

--- Toughness test standard generic term corresponding to the original terms of the impact test and fracture test in terms from the original 60 was reduced to 55;

--- Fatigue test standard generic term for the original 83 was reduced to 40;

--- Deletion of the original standard, "Chapter 4, shear and bending test" and "Chapter 11, abrasion test";

--- Increase the informative Appendix A and Appendix B;

--- English index merged, organized in the order in accordance with the terms of the alphabet, and lists the terms corresponding to the page number, without is the corresponding chapter number.

The Standard Appendix A and Appendix B are informative appendices.

The standard proposed by China Iron and Steel Association.

This standard is under the jurisdiction of the National Steel Standardization Technical Committee.

This standard was drafted. Iron and Steel Research Institute, Metallurgical Industry Information Standards Institute, Shougang Group, Baosteel Co., Ltd., Wuhan Chinese Iron and Steel (Group) Corporation, Jinan Test Group Corporation, Shanghai Research Institute of Materials, Changchun Testing Machine Institute, Beijing Institute of Aeronautical Materials, have Ferrous metals Research Institute, China Institute of Metrology.

1 Scope

This standard defines the term mechanical properties of metallic materials used in the test, and the formation of common standards and is generally used when the title is.

2 General terms

delta Rao

Crack extension Increasing the amount of crack length.

NOTE: expressed in millimeters (mm).

for compact tension specimen, the crack length from the load line to indicate the length of the crack tip; the intermediate crack specimens is Refers to the length from the center of the middle of the crack to the crack tip; to bend specimens, is measured from the front end surface of the sample to the length of the crack tip.

Crack size linear measurements from the reference plane to the main plane of the crack tip size.

NOTE: expressed in millimeters (mm).

It refers to plastic deformation before breaking ability of the material.

When stress is completely released material can be maintained without permanent strain of maximum stress.

Mechanical testing, the role to the size, direction, and other basic natural force point attributes described in the external test object and in its interior Vector generated stress.

Elastic and inelastic reactions associated with stress or material contained in the display of force - strain properties.

Test mechanical properties.