INTERNATIONAL STANDARD

ISO 14556

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Steel — Charpy V-notch pendulum impact test — Instrumented test method

Aciers — Essai de flexion par choc sur éprouvette Charpy à entaille en V — Méthode d'essai instrumenté

Reference number
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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 734 10 79
E-mail copyright@iso.ch
Web www.iso.ch

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 14556 was prepared by Technical Committee ISO/TC 164, *Mechanical testing of metals*, Subcommittee SC 4, *Toughness testing*.

Annexes A to C of this International Standard are for information only.

Steel — Charpy V-notch pendulum impact test — Instrumented test method

1 Scope

This International Standard specifies a method of instrumented Charpy V-notch pendulum impact testing on steel products and the requirements concerning the measurement and recording equipment.

This International Standard can be applied to other metallic materials by agreement.

This test provides further information on the fracture behaviour of the tested product.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated reference, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 148-1, *Metallic materials — Charpy pendulum impact test — Part 1: Test Method.*

ISO 148-2, *Metallic materials — Charpy pendulum impact test — Part 2: Verification of test machines.*

3 Terms and definitions

For the purposes of this International Standard, the following terms and definitions apply.

3.1 Characteristic values of force

NOTE Characteristic values of force are expressed in newtons.

3.1.1
general yield force
F_{gy}
force at the transition point from the linearly increasing part to the curved increasing part of the force-displacement curve

NOTE It represents a first approximation of the force at which yielding has occurred across the entire uncracked-test-piece ligament (see 9.3).

3.1.2
maximum force
F_m
maximum force in the course of the force-displacement curve