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STN	**Oceľ** **Stanovenie hrúbky povrchovo tvrdenej vrstvy (ISO 18203: 2016)**	**STN** **EN ISO 18203** 42 0701

Steel - Determination of the thickness of surface-hardened layers (ISO 18203:2016)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/22

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Oznámením tejto normy sa ruší
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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 18203

March 2022

ICS 77.040.99

Supersedes EN ISO 2639:2002, EN 10328:2005

English Version

Steel - Determination of the thickness of surface-hardened layers (ISO 18203:2016)

Acier - Détermination de l'épaisseur des couches durcies superficielles (ISO 18203:2016)

Stahl - Bestimmung der Dicke gehärteter Randschichten (ISO 18203:2016)

This European Standard was approved by CEN on 20 March 2022.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

The text of ISO 18203:2016 has been prepared by Technical Committee ISO/TC 17 "Steel" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 18203:2022 by Technical Committee CEN/TC 459/SC 1 "Test methods for steel (other than chemical analysis)" the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2022, and conflicting national standards shall be withdrawn at the latest by September 2022.

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

This document supersedes EN ISO 2639:2002 and EN 10328:2005.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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Endorsement notice

The text of ISO 18203:2016 has been approved by CEN as EN ISO 18203:2022 without any modification.

INTERNATIONAL STANDARD

ISO 18203

First edition
2016-12-01

Steel — Determination of the thickness of surface-hardened layers

Acier — Détermination de l'épaisseur des couches durcies superficielles

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 17, *Steel*, Subcommittee SC 7, *Methods of testing (other than mechanical tests and chemical analysis)*.

This first edition of ISO 18203 cancels and replaces ISO 2639:2002, ISO 3754:1976 and ISO 4970:1979, which have been technically revised.

Introduction

In the past, there are three ISO standards for measuring surface-hardened layer. Because those standards employed almost the same principle of measuring, it is intended to make it easy for maintenance of the standards and application of test by integrating these three standards.

The method of estimating uncertainty of measurement is not included in this document. In future revision, uncertainty of measurement may be reflected based on real applications to this test.

INTERNATIONAL STANDARD **ISO 18203:2016(E)**

Steel — Determination of the thickness of surface-hardened layers

1 Scope

This document specifies a method of measuring the case hardening depth, surface hardening depth, nitriding hardness depth and total thickness of surface hardening depth obtained, e.g. thermal (flame and induction hardening, electron beam hardening, laser beam hardening, etc.) or thermochemical (carbonitriding, carburizing and hardening, hardening and nitriding, etc.) treatment.

NOTE Surface-hardened layer can be produced by mechanical method (shot blasting, shot peening, etc.). The depth of these layers is generally shallow. Measuring a profile of hardened depth may require lower test force of hardness test.

2 Normative reference

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 4545-1, *Metallic materials — Knoop hardness test — Part 1: Test method*

ISO 4545-2, *Metallic materials — Knoop hardness test — Part 2: Verification and calibration of testing machines*

ISO 6507-1, *Metallic materials — Vickers hardness test — Part 1: Test method*

ISO 6507-2, *Metallic materials — Vickers hardness test — Part 2: Verification and calibration of testing machines*

