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Responsible committee: ISE/101/7 Methods of physical and metallographic testing

Interested committees:

Title: Draft BS EN ISO 18203 Steel. Determination of the thickness of surface-hardened layers.

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



DRAFT International Standard

ISO/DIS 18203

Steel — Determination of the thickness of surface-hardened layers

*Acier — Détermination de l'épaisseur des couches durcies
superficielles*

ICS: 77.040.99

ISO/TC 17/SC 7

Secretariat: **AFNOR**

Voting begins on:
2025-04-22

Voting terminates on:
2025-07-15

This document is circulated as received from the committee secretariat.

ISO/CEN PARALLEL PROCESSING

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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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This document was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 7, *Methods of testing (other than mechanical tests and chemical analysis)*.

This second edition cancels and replaces the first edition (ISO 18203:2016), which has been technically revised.

The main changes are as follows:

- Removal of the reference to shot peening;
- Removal of the Compound layer Thickness CLT;
- Introduction of standard test loads for the determination of hardness depths, and the procedure for measurements in the event of arbitration;
- Extension of [Table 1](#) by Rockwell test methods;
- Extension of [Table 2](#) by further short characters;
- Precise definition of how the core hardness shall be tested;
- Determination of the edge distance of the first hardness impression from the edge;
- Explanation of how to determine the total thickness of surface hardening depth THD.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

There are several ways of creating a surface-hardened layer in steel, but the measurement of its thickness follows the same principle, regardless of the chemical composition or heat treatment of the sample. This document presents the basic principle of determining the thickness of surface-hardened layers as well as the differences particular to the different methods of creating the surface-hardened layer.

No method of estimating uncertainty is presented in this document. As real applications of this procedure accrue, the need may arise to address this topic in future revisions.