INTERNATIONAL STANDARD

ISO 7788

Second edition 2021-10

Steel — Surface finish of hot-rolled plates and wide flats — Delivery requirements

r — iditions Acier — État de surface des tôles et larges-plats laminés à chaud —





© ISO 2021

mentation, no part c'al including phe'vid from either All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

Contents			Page	
Forev	word		iv	
1	Scope		1	
2	Norn	ative references	1	
3	Terms and definitions		1	
4	General		3	
5	Class	fication	3	
6	Requirements			
	6.1	Depth and affected area of discontinuities 6.1.1 Depth	4	
		6.1.2 Affected area	4	
	6.2	Repair requirements 6.2.1 Class A	5	
	6.3	6.2.2 Class B		
	0.0	6.3.1 Grinding	7	
		6.3.2 Welding		
Anne	x A (in nomi	formative) Action to undertake in function of the depth of discontinuities and nal thickness of the products	10	
Anne		formative) Classes and subclasses for surface conditions with their respective rements	13	
Biblio	ograph	y	14	

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 3, *Steels for structural purposes*.

This second edition cancels and replaces the first edition (ISO 7788:1985), which has been technically revised.

The main changes are as follows:

- updated normative reference:
- new definitions added and definitions in former Annex A added to <u>Clause 3</u>;
- deletion of distinction concerning boilers and pressure vessel applications (Clause 4);
- new definition of two classes and three subclasses added (<u>Clause 5</u>);
- new <u>Clause 6</u> on depth and determination of affected areas, repair requirements and repair procedures;
- new <u>Annex B</u> with classes and subclasses for surface conditions with their respective requirements;
- deletion of former Annex A.

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.

Steel — Surface finish of hot-rolled plates and wide flats — Delivery requirements

1 Scope

This document specifies delivery requirements applicable to the surface finish of hot-rolled plates rolled on reversing mills and wide flats, with a nominal thickness ≥ 3 mm and ≤ 400 mm.

2 Normative references

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 6929, Steel products — Vocabulary

ISO 7452, Hot-rolled steel plates — Tolerances on dimensions and shape

ISO 9034, Hot-rolled structural steel wide flats — Tolerances on dimensions and shape

ISO 9606-1, Qualification testing of welders — Fusion welding — Part 1: Steels

ISO 15607, Specification and qualification of welding procedures for metallic materials — General rules

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6929 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at https://www.iso.org/obp
- IEC Electropedia: available at https://www.electropedia.org/

3.1

imperfection

surface discontinuity other than cracks (3.10), shell and seams (3.11) with a depth and/or an area equal to or less than a specified limiting value

Note 1 to entry: Discontinuities that are required to be repaired are regarded as defects.

3.2

defect

surface discontinuity with a depth and/or area greater than a specified limiting value and all *cracks* (3.10), *shell and seams* (3.11), irrespective of their depth or/and area

3.3

rolled-in scale and pitting

marks on the rolled surface varying in shape, thickness and frequency resulting from the unsatisfactory subsequent removal of scale from the stock before or during hot rolling and processing

Note 1 to entry: Rolled-in scale-pitting can be regarded as discontinuities.