Fourth edition 2018-02

## Steel flat products for pressure purposes — Technical delivery conditions —

Part 5:

## Weldable fine grain steels, thermomechanically rolled

Produits plats en acier pour service sous pression — Conditions techniques de livraison —

Partie 5: Aciers soudables à grains fins, laminés thermomécaniquement





## **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2018

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, Switzerland Tel. +41 22 749 01 11 Fax +41 22 749 09 47 copyright@iso.org www.iso.org

Published in Switzerland

Con	tents	Page
Forew	ord	iv
1	Scope	1
2	Normative references	1
3	Terms and definitions	
4	Classification and designation 4.1 Classification 4.2 Designation	2
5	Information to be supplied by the purchaser  5.1 Mandatory information  5.2 Options  5.3 Example for ordering	2 2
6	Requirements 6.1 Steelmaking process 6.2 Delivery condition 6.3 Chemical composition 6.4 Mechanical properties 6.5 Surface condition 6.6 Internal soundness 6.7 Weldability 6.8 Dimensions and tolerances 6.9 Calculation of mass	3 3 3 4 4 4 4 5
7	Inspection 7.1 Types of inspection and inspection documents 7.2 Tests to be carried out 7.3 Retests, sorting and reprocessing	5 5
8	Sampling	5
9	Test methods	5
10	Marking	6
Annex	A (normative) Chemical composition and mechanical properties of products delivered in accordance with European design codes	7
Annex	B (normative) Chemical composition and mechanical properties of products delivered in accordance with ASME-type design codes	11
Annex	C (informative) Steel designations in accordance with this document and designation of comparable steel grades in national or regional standards	14
Biblio	graphy	15

## 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 <a href="www.iso.org/directives">www.iso.org/directives</a>).

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 <a href="https://www.iso.org/patents">www.iso.org/patents</a>).

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

For an explanation on 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 the following URL: <a href="https://www.iso.org/iso/foreword.html">www.iso.org/iso/foreword.html</a>.

This document was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 10, *Steel for pressure purposes*.

This fourth edition cancels and replaces the third edition (ISO 9328-5:2011), which has been technically revised. The following changes have been made:

- the term "product thickness" has been replaced with "nominal thickness";
- the example of ordering has been revised;
- the content of the document has been generally updated.
- in Table B.1, " $B \le 0,001$  0" has been added and the specifications of "P" and "S" have been changed.

A list of all the parts in the ISO 9328 series can be found on the ISO website.