
Structural steels —

Part 5:
**Technical delivery conditions for
structural steels with improved
atmospheric corrosion resistance**

Aciers de construction —

*Partie 5: Conditions techniques de livraison pour aciers de
construction à résistance améliorée à la corrosion atmosphérique*



This document is a preview generated by EMS



COPYRIGHT PROTECTED DOCUMENT

© ISO 2014

All rights reserved. Unless otherwise specified, 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
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Classification and designation	2
4.1 Classification	2
4.2 Grades and qualities	2
4.3 Normative annexes	3
5 Information to be supplied by purchaser	3
5.1 Mandatory information	3
5.2 Options	3
6 Requirements	3
6.1 General	3
6.2 Steelmaking process	3
6.3 Delivery condition	3
6.4 Chemical composition	4
6.5 Mechanical properties	4
6.6 Surface conditions	4
6.7 Internal soundness	5
6.8 Dimensions and tolerances on dimensions, shape, and mass	5
7 Inspection	5
8 Sampling — Frequency of testing	5
8.1 Verification	5
8.2 Test units	5
9 Test methods	5
10 Marking	5
Annex A (normative) Steel grades S235W, S355W, S355WP: Chemical composition and mechanical properties	6
Annex B (normative) Steel grades SG245, SG345, SG365, SG400, SG460, SG500, AND SG700: Chemical composition and mechanical properties	11
Annex C (informative) Notes on weldability	16
Annex D (informative) Additional information for the use of steel with improved atmospheric corrosion resistance	17
Bibliography	18

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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 17, *Steel*, Subcommittee SC 3, *Steels for structural purposes*.

This first edition of ISO 630-5 cancels and replaces ISO 4952:2006, of which it constitutes a technical revision.

ISO 630 consists of the following parts, under the general title *Structural steels*:

- *Part 1: General technical delivery conditions for hot-rolled products*
- *Part 2: Technical delivery conditions for non alloy structural steels for general purposes*
- *Part 3: Technical delivery conditions for fine-grain structural steels*
- *Part 4: Technical delivery conditions for high-yield-strength quenched and tempered structural steels plates*
- *Part 5: Technical delivery conditions for structural steels with improved atmospheric corrosion resistance*
- *Part 6: Technical delivery conditions for seismic improved structural steels for building*

Structural steels —

Part 5:

Technical delivery conditions for structural steels with improved atmospheric corrosion resistance

1 Scope

This part of ISO 630 specifies qualities for steels with improved atmospheric corrosion resistance for general structural use. It applies to steel plates rolled on a reversing mill, wide flats, hot-rolled sections and bars, which are used in the usual delivery conditions as given in [6.3](#), and normally intended for welded or bolted structures.

This part of ISO 630 covers nine (9) grades and four (4) qualities. Grades S235 and S355 are covered in [Annex A](#). Grades SG245, SG345, SG365, SG400, SG460, SG500, and SG700 are covered in [Annex B](#). Not all grades are available in all qualities, and some qualities have Charpy V-notch requirements.

This part of ISO 630 does not include the following structural steels, certain of which are covered by other International Standards:

- sheet and strip – refer to ISO TC 17/SC 12 “Continuous mill flat rolled products”;
- tubular products – refer to ISO TC 5/SC 1 “Steel tubes”.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 630-1, *Structural steels — Part 1: General technical delivery conditions for hot-rolled products*

ISO 643, *Steels — Micrographic determination of the apparent grain size*

ISO 4948-2, *Steels — Classification — Part 2: Classification of unalloyed and alloy steels according to main quality classes and main property or application characteristics*

ISO 10474, *Steel and steel products — Inspection documents*

3 Terms and definitions

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

3.1

as-rolled

steel without any special rolling and/or heat treatment condition

3.2

fine grain

steel with fine grain structure with an equivalent index of grain size ≥ 6

Note 1 to entry: See [6.2](#).

Note 2 to entry: For the determination of grain size, see ISO 643.