International Standard

ISO 11951

Cold-reduced tinmill products — Blackplate

Aciers pour emballage laminés à froid — Fer noir

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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

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Foreword

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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 document 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 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 9, *Tinplate and blackplate*.

This third edition cancels and replaces the second edition (ISO 11951:2016), which has been technically revised.

The main changes are as follows:

— the Scope has been modified to clarify that blackplate is also used in other applications (beside electrolytic tinplate and ECCS) (see Clause 1);

— the maximum nominal thickness for double cold-reduce tinplate has been changed to 0,390 mm, instead of 0,360 mm (see Clause 1);

— several steel grades have been added (see Tables A.1, A.2 and B.1);

— the lower yield strength, R_{eL} has specified for CA (see 8.3, 12.2.2, Annex B, Annex D).

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Cold-reduced tinmill products — Blackplate

1 Scope

This document specifies requirements for single and double cold-reduced blackplate in the form of coils which are generally intended for manufacturing electrolytic tinplate or electrolytic chromium/chromium oxide-coated steel (ECCS) according to ISO 11949[1] or ISO 11950[2].

This document applies to:

— single cold-reduced blackplate which is generally specified in nominal thicknesses that are multiples of 0,005 mm from 0,150 mm up to and including 0,600 mm;

— double cold-reduced blackplate which is generally specified in nominal thicknesses that are multiples of 0,005 mm, from 0,100 mm up to and including 0,390 mm.

This document applies to coils in nominal minimum rolling widths of 600 mm[1)] with either trimmed or untrimmed edges.

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 404, *Steel and steel products — General technical delivery requirements*

ISO 6508-1, *Metallic materials — Rockwell hardness test — Part 1: Test method*

ISO 6892-1:2019, *Metallic materials — Tensile testing — Part 1: Method of test at room temperature*

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

3 Terms and definitions

For the purposes of this document, the following terms and definitions 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
blackplate
cold-reduced low-carbon mild steel, normally oiled, for the production of electrolytic tinplate or ECCS in accordance with ISO 11949 or ISO 11950

3.2
single cold-reduced
description of product in which the blackplate has been reduced to the desired thickness in a cold-reduction mill and subsequently annealed and temper rolled

1) Nominal minimum rolling widths of 500 mm may be applied by agreement between the purchaser and the manufacturer.

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