
**Cold-reduced tinmill products —
Blackplate**

Aciers pour emballage laminés à froid — Fer noir



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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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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 9, *Tinplate and blackplate*.

This second edition cancels and replaces the first edition (ISO 11951:1995), which has been technically revised.

Introduction

Selling of packaging steels is today a worldwide business. Therefore, revision of this International Standard was expected earlier since the last edition dated from 1995. Because of the long period between revisions, harmonization became difficult. In some regions, the properties of the packaging steels are determined by the hardness test whereas in other regions, a decade ago, the hardness test was replaced by the tensile test. Since the latest available techniques should be reflected in this International Standard, the possibility of using the tensile test as the reference test for determining the mechanical properties should be considered during the next revision of this International Standard.

Cold-reduced tinmill products — Blackplate

1 Scope

This International Standard specifies requirements for single and double cold-reduced blackplate in the form of coils which are intended for manufacturing electrolytic tinplate or electrolytic chromium/chromium oxide-coated steel (ECCS) in accordance with ISO 11949 or ISO 11950.

Single cold-reduced blackplate 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 is generally specified in nominal thicknesses that are multiples of 0,005 mm, from 0,100 mm up to and including 0,360 mm.

This International Standard applies to coils in nominal minimum rolling widths of 600 mm¹⁾ with either trimmed or untrimmed edges.

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

ISO 4288, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Rules and procedures for the assessment of surface texture*

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

ISO 6892-1:—²⁾, *Metallic materials — Tensile testing — Part 1: Method of test at room temperature*

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

ISO 11949, *Cold-reduced tinmill products — Electrolytic tinplate*

ISO 11950, *Cold-reduced tinmill products — Electrolytic chromium/chromium oxide-coated steel*

3 Terms and definitions

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

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.

2) To be published (Revision of ISO 6892-1:2009)