International Standard 1111/1

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION•МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ•ORGANISATION INTERNATIONALE DE NORMALISATION

Single cold-reduced tinplate and single cold-reduced blackplate — Part 1: Electrolytic and hot-dipped tinplate sheet and blackplate sheet

Fer-blanc et fer noir laminés à froid par simple réduction — Partie 1: Feuilles de fer-blanc obtenues par électrolyse et par immersion à chaud et feuilles de 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 developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been authorized 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 1111/1 was developed by Technical Committee ISO/TC 17, *Steel*, and was circulated to the member bodies in October 1982.

It has been approved by the member bodies of the following countries:

Australia	Hungary	Norway
Austria	India	Poland
Belgium	Iran	Romania
Bulgaria	Italy	South Africa, Rep. of
Canada	Japan	Spain
China	Kenya	Sweden
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Egypt, Arab Rep. of	Korea, Rep. of	Turkey
France	Mexico	United Kingdom
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No member body expressed disapproval of the document.

This International Standard cancels and replaces ISO Recommendation ISO/R 1111/1-1969, of which it constitutes a technical revision.

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Single cold-reduced tinplate and single cold-reduced blackplate — Part 1: Electrolytic and hot-dipped tinplate sheet and blackplate sheet

1 Scope and field of application

1.1 This part of ISO 1111 applies to single cold-reduced electrolytic and hot-tipped tinplate sheet in low carbon cold-reduced mild steel in nominal thicknesses from 0,15 mm up to and including 0,49 mm and to single cold-reduced blackplate sheet in low carbon mild steel in nominal thicknesses from 0,15 mm up to and including 0,49 mm.

1.2 This part of ISO 1111 does not apply to tinplate or blackplate in coils, or to double-reduced tinplate or blackplate, or to material described commercially as tinned sheets, steel sheets or electrolytic chromium/chromium oxide coated steel (TFS).

2 References

ISO/R 1024, *Rockwell superficial hardness test (N and T scales) for steel.*

ISO 1111/2, *Single cold-reduced tinplate and single cold-reduced blackplate — Part 2: Electrolytic tinplate coil and blackplate coil for subsequent cutting into sheet.*[1)]

ISO 4977, *Double cold-reduced electrolytic tinplate.*[2)]

3 Definitions

For the purpose of this part of ISO 1111 the following definitions apply:

3.1 tinplate: Cold-reduced low carbon mild steel sheet coated on both surfaces with tin, applied either by dipping in molten tin or by electro-deposition. Tinplate produced by the hot-dipping process is called hot-dipped tinplate; that produced by electro-deposition is called electrolytic tinplate.

3.2 differentially coated tinplate: Electrolytic tinplate, one surface of which carries a heavier tin coating than the other.

3.3 blackplate: Cold-reduced low carbon mild steel sheet, not tinned, and normally not oiled or otherwise treated.

3.4 consignment: A quantity of tinplate or blackplate of the same dimensions and quality made available for despatch at the same time.

4 Conditions of manufacture and utilization

4.1 The methods of manufacture of tinplate and blackplate are the province of the producer.

4.2 The methods of using tinplate and blackplate are the province of the user.

4.3 The tin used for the coating of tinplate shall have a purity of not less than 99,75 %.

4.4 The chemical composition of the steel may be agreed upon between the producer and the purchaser provided that it is consistent with this part of ISO 1111. (See clause 15.)

4.5 At the time they are made available by the producer and under normal conditions of transport and storage, tinplate and blackplate are suitable for surface treatments such as established lacquering and printing operations. Appropriate grades and tempers are also suitable for shaping operations such as stamping, drawing, folding and bending, and assembly work such as joint forming, soldering (tinplate only) and welding. The purchaser's order requirements shall be consistent with the end use of the product.

4.6 Surface finishes

4.6.1 There are four recognized commercial finishes for electrolytic tinplate, namely bright, stone, matt and silver. The appearance is governed by

1) At present at the stage of draft. (Revision of ISO/R 1111/2-1976.)

2) At present at the stage of draft.