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Cold-reduced tinmill products — Electrolytic tinplate

Aciers pour emballage laminés à froid — Fer blanc électrolytique

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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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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 11949:2016), which has been technically revised.

The main changes are as follows:

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

— the chromium-free passivation has been specified in addition to the usual chromium passivation (see 6.2 and 7.4);

— former subclause 7.4, “Passivation and Oiling”, has been divided into two subclauses, i.e. passivation (7.4) and oiling (7.5);

— the coating mass of 0,6 g/m^2 has been specified for the lowest coating mass, instead of 1,0 g/m^2 (see Clause 8);

— an option to supply sheet numbers in bulk package other than multiples of 100 has been added (17.2);

— the maximum weight of sheets in bulk package has been increased to up to 3 000 kg instead of 2 000 kg (17.2);

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

— the lower yield strength, R_{eL} has been specified for CA (9.3, 14.3.2, Annex B, Annex D).

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Cold-reduced tinmill products — Electrolytic tinplate

1 Scope

This document specifies requirements for single and double cold-reduced low-carbon mild steel electrolytic tinplate in the form of sheets or coils.

Single cold-reduced tinplate 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 tinplate 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 and sheets cut from coils in nominal minimum rolling widths of 600 mm.[1)]

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, applied for manufacturing electrolytic tinplate

Note 1 to entry: See ISO 11951[1].

3.2
electrolytic tinplate
cold-reduced low-carbon steel sheet or coil coated on both surfaces with tin that is applied in a continuous electrolytic operation

3.3
differentially coated electrolytic tinplate
cold-reduced electrolytic tinplate, one surface of which carries a heavier tin coating than the other

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

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