

Külmtoodeldud elektrolüütilisel teel kroomi või kroomoksiidiga kaetud teras

Cold-reduced electrolytic chromium/chromium oxide-coated steel

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

Käesolev Eesti standard EVS-ISO 11950:2004 "Külm-
töödeldud elektrolüütilisel teel kroomi või kroom-
oksiidiga kaetud teras" sisaldab rahvusvahelise
standardi ISO 11950:1995 "Cold-reduced electrolytic
chromium/chromium oxide-coated steel" identset inglis-
keelset teksti.

Standard EVS-ISO 11950:2004 on kinnitatud Eesti
Standardikeskuse 19.06.2009 käskkirjaga ja jõustub
sellekohase teate avaldamisel EVS Teatajas.

Standard on kättesaadav Eesti Standardikeskusest.

This Estonian Standard EVS-ISO 11950:2004 con-
sists of the identical English text of the International
Standard ISO 11950:1995 "Cold-reduced electrolytic
chromium/chromium oxide-coated steel".

This standard is ratified with the order of Estonian
Centre for Standardisation dated 19.06.2009 and is
endorsed with the notification published in the official
bulletin of the Estonian national standardisation
organisation.

The standard is available from Estonian Centre for
Standardisation.

Käsitlusala

Käesolev rahvusvaheline standard täpsustab nõudeid
ühe- ja kahekordselt külm-
töödeldud elektrolüütilisel
teel kroomi või kroomoksiidiga kaetud terasele
(ECCS), mis on lehtede kujul või järjestikuseks
lehtedeks lõikamise eesmärgil rulli keritud kujul.

Ühekordselt töödeldud ECCSile on määratud nomi-
naalpaksused, mis on 0,005 mm kordarvud, alates
0,17 mm kuni 0,49 mm (kaasa arvatud). Topelt-
töötusega ECCSile on määratud nominaalpaksused,
mis on 0,005 kordarvud, alates 0,14 mm kuni
0,29 mm (kaasa arvatud).

Käesolev rahvusvaheline standard kehtib rullidele ja
rullidest lõigatud lehtedele nominaalse miinimum-
laiusega 500 mm.

Lisa D sisaldab nimekirja valitud toote kohta kehti-
vatest punktidest.

Scope

This International Standard specifies requirements for
single and double cold-reduced electrolytic
chromium/chromium oxide-coated steel (ECCS) in the
form of sheets or coils for subsequent cutting into
sheets.

Single-reduced ECCS is specified in nominal thick-
nesses that are multiples of 0,005 mm, from 0,17 mm
up to and including 0,49 mm. Double-reduced ECCS
is specified in nominal thicknesses that are multiples
of 0,005 mm, from 0,14 mm up to and including
0,29 mm.

This International Standard applies to coils and sheets
cut from coils in nominal minimum widths of 500 mm.

Annex D lists the relevant clauses for the selected
product.

ICS 77.140.50 Lameterastooted ja -pooltooted**Võttesõnad:** külm-
töötlemine, teras**Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele**

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või
millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

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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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 11950 was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 9, *Tinplate and blackplate*.

It cancels and replaces ISO 8110-1:1988 and ISO 8111-1:1988.

Annexes A and B form an integral part of this International Standard. Annexes C and D are for information only.

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1 Scope

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Single-reduced ECCS is specified in nominal thicknesses that are multiples of 0,005 mm, from 0,17 mm up to and including 0,49 mm. Double-reduced ECCS is specified in nominal thicknesses that are multiples of 0,005 mm, from 0,14 mm up to and including 0,29 mm.

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Annex D lists the relevant clauses for the selected product.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1024:1989, *Metallic materials — Hardness test — Rockwell superficial test (scales 15N, 30N, 45N, 15T, 30T and 45T)*.

ISO 6892:1984, *Metallic materials — Tensile testing*.

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 electrolytic chromium/chromium oxide-coated steel (ECCS): Low-carbon mild steel sheet or coil, electrolytically treated to produce on both surfaces a duplex film of metallic chromium adjacent to the steel substrate with a top layer of hydrated chromium oxide or hydroxide.

3.2 single cold-reduced: Term used to describe those products where the steel substrate has been reduced to the desired thickness in a cold-reduction mill and subsequently annealed and temper rolled.

3.3 double cold-reduced: Term used to describe those products in which the steel base has had a second major reduction after annealing.

3.4 standard grade ECCS: Material in sheet form which is the product of line inspection. It is suitable, under normal conditions of storage, for established lacquering and printing over the entire surface of the sheet and does not contain any of the following:

- pinholes, i.e. any perforation through the whole thickness of the material;
- thickness outside the tolerance range specified in 10.3;
- surface defects which render the material unsuitable for the intended use;
- damage or shape-related defects which render the material unsuitable for the intended use.

3.5 batch annealed; box annealed (BA): Annealed by the process in which the cold-reduced strip is annealed in tight coil form, within a protective atmosphere, for a predetermined time-temperature cycle.

3.6 continuously annealed (CA): Annealed by the process in which cold-reduced coils are unwound and annealed in strip form within a protective atmosphere.