

**Corrosion protection of metals -  
Electrodeposited coatings of nickel,  
nickel plus chromium, copper plus  
nickel and copper plus nickel plus  
chromium**

Corrosion protection of metals - Electrodeposited  
coatings of nickel, nickel plus chromium, copper plus  
nickel and copper plus nickel plus chromium

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12540:2000 sisaldab Euroopa standardi EN 12540:2000 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 12.09.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12540:2000 consists of the English text of the European standard EN 12540:2000.</p> <p>This document is endorsed on 12.09.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b></p> <p>This standard specifies requirements for nickel, nickel plus chromium, copper plus nickel and copper plus nickel plus chromium electrodeposited coatings applied to iron and steel, to zinc alloys, to copper and copper alloys, and to aluminium and aluminium alloys to provide an attractive appearance and corrosion resistance.</p> <p>This standard is not intended to be used alone, but it is the complement of EN 1403. It is necessary for the purchaser to specify the electrodeposited coating in accordance with the designation as specified in EN 1403.</p>	<p><b>Scope:</b></p> <p>This standard specifies requirements for nickel, nickel plus chromium, copper plus nickel and copper plus nickel plus chromium electrodeposited coatings applied to iron and steel, to zinc alloys, to copper and copper alloys, and to aluminium and aluminium alloys to provide an attractive appearance and corrosion resistance.</p> <p>This standard is not intended to be used alone, but it is the complement of EN 1403. It is necessary for the purchaser to specify the electrodeposited coating in accordance with the designation as specified in EN 1403.</p>
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ICS 25.220.40

Võtmesõnad:

**English version**

Corrosion protection of metals

**Electrodeposited coatings of nickel, nickel plus  
chromium, copper plus nickel and copper plus nickel  
plus chromium**

Protection contre la corrosion des  
métaux – Revêtements électro-  
lytiques de nickel, nickel plus  
chrome, cuivre plus nickel et cuivre  
plus nickel plus chrome

Korrosionsschutz von Metallen –  
Galvanische Nickel-Überzüge und  
Nickel-Chrom-Überzüge, Kupfer-  
Nickel-Überzüge und Kupfer-Nickel-  
Chrom-Überzüge

This European Standard was approved by CEN on 2000-03-01.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

**Central Secretariat: rue de Stassart 36, B-1050 Brussels**

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## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 262 "Metallic and other inorganic coatings", the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2000, and conflicting national standards shall be withdrawn at the latest by October 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This European Standard specifies requirements for nickel, nickel plus chromium, copper plus nickel and copper plus nickel plus chromium electrodeposited coatings applied to iron and steel, to zinc alloys and to copper and copper alloys to provide an attractive appearance and corrosion resistance.

The nickel and copper plus nickel coatings without chromium topcoats that are specified in this European Standard are suitable for applications in which tarnishing is prevented by rubbing or handling in service, or by the use of topcoats other than chromium. They are also suitable for those applications where tarnishing is of no importance.

**NOTE** This European Standard is not intended to be used alone, but is the complement of EN 1403. The purchaser has to specify the electrodeposited coating in accordance with the designation as specified in EN 1403.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 1403:1998, *Corrosion protection of metals - Electrodeposited coatings - Method of specifying general requirements*.

EN ISO 1462, *Metallic coatings - Coatings other than those anodic to the basis metal - Accelerated corrosion tests - Method for the evaluation of results (ISO 1462 :1973)*.

EN ISO 1463, *Metallic and oxide coatings - Measurement of coating thickness - Microscopical method (ISO 1463 :1982)*.

EN ISO 2177, *Metallic coatings - Measurement of coating thickness - Coulometric method by anodic dissolution (ISO 2177 :1985)*.

EN ISO 2361, *Electrodeposited nickel coatings on magnetic and non-magnetic substrates - Measurement of coating thickness - Magnetic method (ISO 2361 :1982)*.

EN ISO 2819, *Metallic coatings on metallic substrates - Electrodeposited and chemically deposited coatings - Review of methods available for testing adhesion (ISO 2819 :1980)*.

prEN ISO 3497:1999, *Metallic coatings - Measurement of coating thickness - X-ray spectrometric methods (ISO/DIS 3497 :1998)*.

EN ISO 4541, *Metallic and other non-organic coatings - Corrodokote corrosion test (CORR test) (ISO 4541 :1978)*.

EN ISO 8401:1994, *Metallic coatings - Review of methods of measurement of ductility (ISO 8401 :1986)*.

ISO 9227, *Corrosion tests in artificial atmospheres - Salt spray tests*.