

## **Grain-oriented electrical steel sheet and strip delivered in the fully processed state**

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 10107:2005 sisaldab Euroopa standardi EN 10107:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 29.09.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 10107:2005 consists of the English text of the European standard EN 10107:2005.</p> <p>This document is endorsed on 29.09.2005 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 European Standard specifies the steel grades of grain-oriented electrical sheet and strip in nominal thicknesses of 0,23 mm, 0,27 mm, 0,30 mm and 0,35 mm; in particular, general requirements, magnetic properties, geometric characteristics and tolerances and technological characteristics, as well as inspection procedures.</p>	<p><b>Scope:</b></p> <p>This European Standard specifies the steel grades of grain-oriented electrical sheet and strip in nominal thicknesses of 0,23 mm, 0,27 mm, 0,30 mm and 0,35 mm; in particular, general requirements, magnetic properties, geometric characteristics and tolerances and technological characteristics, as well as inspection procedures.</p>
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**ICS** 77.140.50

**Võtmesõnad:**

English Version

Grain-oriented electrical steel sheet and strip delivered in the  
fully processed state

Tôles et bandes magnétiques en acier à grains orientés  
livrées à l'état fini

Kornorientiertes Elektroblech und -band im  
schlussgeglühten Zustand

This European Standard was approved by CEN on 27 June 2005.

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.

This European Standard exists 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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## Foreword

This European Standard (EN 10107:2005) has been prepared by Technical Committee ECISS/TC 24 “Electrical steel sheet and strip qualities - Qualities, dimensions, tolerances and specific tests”, the secretariat of which is held by DIN.

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 February 2006, and conflicting national standards shall be withdrawn at the latest by February 2006.

This document supersedes EN 10107:1995.

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

## 1 Scope

This European Standard specifies the steel grades of grain-oriented electrical sheet and strip in nominal thicknesses of 0,23 mm, 0,27 mm, 0,30 mm and 0,35 mm; in particular, general requirements, magnetic properties, geometric characteristics and tolerances and technological characteristics, as well as inspection procedures.

This European Standard applies to Goss textured grain-oriented magnetic sheet steel supplied in the final annealed condition in sheets or coils, and intended for the construction of magnetic circuits.

The materials are grouped into two classes :

- a) conventional grain oriented material ;
- b) high permeability grain oriented material .

They correspond to Clause C22 of IEC 60404-1:2000.

## 2 Normative references

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 10021, *General technical delivery requirements for steel and iron products*

EN 10027-1, *Designation systems for steel - Part 1: Steel names*

EN 10027-2, *Designation systems for steels — Part 2: Numerical system*

EN 10204, *Metallic products — Types of inspection documents*

EN 10251, *Magnetic materials - Methods of determination of the geometrical characteristics of electrical steel sheet and strip*

EN 10280, *Magnetic materials — Methods of measurement of the magnetic properties of electrical sheet and strip by means of a single sheet tester*

EN 10282:2001, *Magnetic materials — Method of test for the determination of surface insulation resistance of electrical sheet and strip*

EN 60404-2, *Magnetic materials — Part 2: Methods of measurement of the magnetic properties of electrical steel sheet and strip by means of an Epstein frame (IEC 60404-2:1996)*

EN ISO 7799, *Metallic materials — Sheet and strip 3 mm thick or less — Reverse bend test (ISO 7799:1985)*

IEC 60050-121:1998, *International Electrotechnical Vocabulary — Chapter 121: Electromagnetism*

IEC 60050-221:1990, *International Electrotechnical Vocabulary — Chapter 221: Magnetic materials and components*

IEC 60404-1:2000, *Magnetic materials — Part 1: Classification*

IEC 60404-13, *Magnetic materials — Part 13: Methods of measurement of density, resistivity and stacking factor of electrical steel sheet and strip*