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

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/14

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EUROPEAN STANDARD **EN 10107**

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2014

ICS 77.140.50

Supersedes EN 10107:2005

English Version

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

Bandes et tôles magnétiques en acier à grains orientés livrées à l'état fini

Kornorientiertes Elektroband und -blech im schlussgeglühten Zustand

This European Standard was approved by CEN on 6 February 2014.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 10107:2014) has been prepared by Technical Committee ECISS/TC 108 “Steel sheet and strip for electrical applications”, 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of an identical text or by endorsement, at the latest by September 2014 and conflicting national standards shall be withdrawn at the latest by September 2014.

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1 Scope

This European Standard defines the steel grades of grain-oriented electrical strip and sheet in nominal thicknesses of 0,23 mm, 0,27 mm, 0,30 mm and 0,35 mm and specifies 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 electrical strip and sheet 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 C.22 of IEC 60404-1:2000.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 conditions for steel 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 10342, *Magnetic materials — Classification of surface insulations of electrical steel sheet, strip and laminations*

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)*

EN 60404-11:2013, *Magnetic materials — Part 11: method of test for the determination of surface insulation resistance of magnetic sheet and strip*

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

EN ISO 7799:2000, *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 60404-3, *Magnetic materials — Part 3: Methods of measurement of the magnetic properties of electrical steel strip and sheet by means of a single sheet tester*