



BSI Standards Publication

Magnetic materials — Methods of determination of the geometrical characteristics of electrical steel sheet and strip

National foreword

This British Standard is the UK implementation of EN 10251:2015. It supersedes BS EN 10251:1997 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ISE/108, Magnetic Alloys and Steels.

A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

Magnetic materials - Methods of determination of the geometrical characteristics of electrical steel sheet and strip

Matériaux magnétiques - Méthodes de détermination des caractéristiques géométrique des tôles électriques en acier

Magnetische Werkstoffe - Verfahren zur Bestimmung der geometrischen Kenngrößen von Elektroblech und -band

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European foreword

This document (EN 10251:2015) 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of an identical text or by endorsement, at the latest by February 2016, and conflicting national standards shall be withdrawn at the latest by February 2016.

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1 Scope

This European Standard is intended to define the test methods used for the determination of the following geometrical characteristics of electrical steel sheet and strip:

- flatness;
- residual curvature;
- edge camber;
- deviation from the shearing line due to internal stresses;
- burr height of cut edges.

This European Standard applies to electrical steel sheet and strip intended for the construction of magnetic circuits and corresponding to Clauses B2, C21 and C22 of IEC 60404-1:2000.

2 Normative references

Not applicable.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
flatness (wave factor)
property of a sheet or length of strip which is characterized by the wave factor, i.e. by the relation of the height of the wave to its length

Note 1 to entry: For examples of waves, see Figure 1.

3.2
residual curvature
permanent curvature in the direction of rolling of an unwound strip

3.3
edge camber
greatest distance between a longitudinal edge of the sheet and the line joining the two ends of the measured section corresponding to this edge

Note 1 to entry: See Figure 3.

3.4
deviation from the shearing line due to internal stresses
greatest distance between corresponding points on the two cut edges of a sheet cut longitudinally

Note 1 to entry: See Figure 4.

3.5
burr height
difference between the thicknesses measured respectively at the cut edge of the sheet and at a distance of 10 mm from this edge

Note 1 to entry: See Figure 5.