

SLOVENSKI STANDARD SIST EN 10132-3:2001

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Cold rolled narrow steel strip for heat treatment - Technical delivery conditions - Part 3: Steels for quenching and tempering

Kaltband aus Stahl für eine Wärmebehandlung - Technische Lieferbedingungen - Teil 3: Vergütungsstähle iTeh STANDARD PREVIEW

Feuillards laminés a froid pour traitement thermique - Conditions techniques de livraison - Partie 3: Acier pour trempe et revenusTEN 10132-3:2001

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Ta slovenski standard je istoveten z: EN 10132-3-2001

ICS:

77.140.10 Jekla za toplotno obdelavo Heat-treatable steels

 \dot{U} | z aga \dot{a} | \dot{a} 77.140.50 Flat steel products and semi-

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EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

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ICS 77.140.10; 77.140.50

English version

Cold rolled narrow steel strip for heat treatment - Technical delivery conditions - Part 3: Steels for quenching and tempering

Feuillards laminés à froid pour traitement thermique -Conditions techniques de livraison - Partie 3: Acier pour trempe et revenu Kaltband aus Stahl für eine Wärmebehandlung -Technische Lieferbedingungen - Teil 3: Vergütungsstähle

This European Standard was approved by CEN on 3 January 2000.

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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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 ECISS/TC 23 "Steels for heat treatment, alloy steels and free-cutting steels - Qualities and dimensions", 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 August 2000, and conflicting national standards shall be withdrawn at the latest by August 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.

The European Standard EN 10132 "Cold rolled narrow steel strip for heat-treatment - Technical delivery conditions" is subdivided as follows:

Part 1: General;

Part 2: Case hardening steels;

Part 3: Steels for quenching and tempering;

Part 4: Spring steels and other special applications.

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1 Scope

- **1.1** This part of EN 10132 applies to non-alloy and alloy cold rolled narrow steel strip in thicknesses up to 6 mm for quenching and tempering, and in the quenched and tempered condition with thicknesses between 0,30 mm and 3,00 mm for general and for specific applications.
- 1.2 This EN 10132-3 is complemented by EN 10132-1.

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.

EN 10020, Definition and classification of grades of steel

EN 10132-1, Cold rolled narrow steel strip for heat treatment - Technical delivery conditions - Part 1: General

EN 10140, Cold rolled narrow steel strip - Tolerances on dimensions and shape

3 Terms and definitions

For the purposes of this standard, the terms and definitions given in EN 10132-1 apply.

4 Classification and designation

4.1 Classification

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All steels covered by this European Standard are classified according to EN 10020. Steel grades C22E, C30E, C35E, C40E, C45E, C50E, C55E, C60E and 25Mn4 are non-alloy special steels, steel grades 25CrMo4, 34CrMo4 and 42CrMo4 are alloy special steels.

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4.2 Designation

See EN 10132-1.

5 Information to be supplied by the purchaser

See EN 10132-1.

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6 Manufacturing process

See EN 10132-1.

7 Requirements

7.1 General

See EN 10132-1.

7.2 Method of delivery

See EN 10132-1.

7.3 Delivery condition

Cold rolled narrow steel strip covered by EN 10132-3 shall be supplied in one of the following delivery conditions:

- annealed or annealed and skin passed (+A or +LC)
- cold rolled (+CR)
- quenched and tempered (+QT) for the grades indicated in table 3 of this standard.

NOTE The delivery condition - annealed to achieve spheroidised carbides (+AC) - may be agreed. In such cases, limits on spheroidisation and mechanical properties may also be agreed at the time of enquiry and order.

7.4 Chemical composition

7.4.1 Cast analysis

The chemical composition shall be in accordance with the values specified in table 1 for the cast analysis.

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7.4.2 Product analysis (standards.iteh.ai)

In cases where a product analysis is requested, the admissible deviations from the values specified for the cast analysis are indicated in table 2.

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7.5 Mechanical properties

The mechanical properties of the strip shall be in accordance with the values given in table 3. For thicknesses outside this range, mechanical properties shall be agreed between the customer and the supplier.

NOTE 1 For those customers who specify Rockwell hardness rather than Vickers hardness or tensile strength, a table is given in A.1, showing Rockwell hardness values for information.

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NOTE 2 For information, the minimum hardness values given in table A.2 show the minimum values after quenching, without tempering.

7.6 Structure

7.6.1 Grain size

See EN 10132-1.

7.6.2 Non-metallic inclusions

See EN 10132-1.

7.6.3 Decarburisation

For steels with minimum carbon contents > 0,50%, decarburisation shall not exceed 3% of the material thickness per side when measured at a distance of 5 mm from the strip edge (see also EN 10132-1).

7.7 Surface finish

The surface finish of cold rolled steel strip shall be bright as achieved by rolling and annealing in a controlled atmosphere.

The surface finishes of guenched and tempered cold rolled strip are as follows:

- grey/blue oxide finish: unpolished
- bright tempered: unpolished
- polished: obtained by fine grinding, abrasive brushing or other processes.
- polished and coloured: blue or yellow colour obtained by oxidisation by heat treatment.

7.8 Dimensions and tolerances on dimensions and shape W

Tolerances on width for queriched and tempered strip shall be agreed between customer and supplier. For all other tolerances EN 10140 applies (see also EN 10132-1).

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Special edges are available by agreement between supplier and customer, and the tolerances on width for these edges are to be agreed.

8 Inspection

See EN 10132-1.

9 Sampling

See EN 10132-1.

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10 Test methods

See EN 10132-1.

11 Labelling, packaging and protection

See EN 10132-1.

12 Retests

See EN 10132-1.

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