

**Parendatud atmosfäärikorrosioonikindlusega
konstruktsiooniterased. Tehnilised tarnetingimused**

Structural steels with improved atmospheric corrosion
resistance - Technical delivery conditions

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 10155:1999 sisaldab Euroopa standardi EN 10155:1993 ingliskeelset teksti.

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atmosfäärikorrosioon, keemiline koostis, konstruktsiooniterased, kontroll, korrosioonikindlad terased, kuumvaltstooted, kvaliteet, margid, markeerimine, nõõtmad, raud- ja terastooted, tarnetingimused, teimid

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English version

**Structural steels with improved atmospheric
corrosion resistance - Technical delivery
conditions**

Aciers de construction à résistance améliorée
à la corrosion atmosphérique - Conditions
techniques de livraison

Wetterfeste Baustähle - Technische
Lieferbedingungen

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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 drawn up by ECISS/TC 10 "Structural steel - qualities" whose secretariat is held by NNI.

This European Standard replaces Euronorm 155-80 "Weathering steels for structural purposes - Quality standard".

ECISS/TC 10 met 26 and 27 September 1991 in Brussels and agreed on the text for circulation for formal vote within CEN. The following countries were represented at that meeting: Belgium, Denmark, Finland, France, Germany, Italy, Luxembourg, Netherlands, Sweden and United Kingdom.

This standard was approved by CEN as a European Standard.

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of an identical text or by endorsement, at the latest by December 1993, and conflicting national standards shall be withdrawn at the latest by December 1993.

In accordance with the CEN/CENELEC Internal Regulations, following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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1 Scope

1.1 This European Standard specifies requirements for long products and flat products of hot-rolled steels with improved atmospheric corrosion resistance (alloyed special steel according to EN 10020) in the grades and qualities given in tables 3 (chemical composition), 5 and 6 (mechanical properties) in the usual delivery condition as given in 7.2.

The thicknesses in which products of the steel grades and qualities specified in this European Standard may be supplied are given in table 2. The application of this standard to greater thicknesses shall be agreed at the time of the enquiry and order.

Option 1.

The steels specified in this European Standard are intended for use in welded, bolted and riveted components which shall have enhanced resistance to atmospheric corrosion, for service at ambient temperatures (subject to the restrictions described in 7.5.1).

They are not intended to be heat treated except products delivered in the delivery condition N. Stress relief annealing is permitted. Products delivered in the N condition may be normalized and hot formed after delivery (see clause 3).

1.2 This European Standard does not apply to structural steels for use in the applications referred to in 1.1 for which specific EURONORMS exist or European Standards dealing with steels for general structural applications are being prepared.

- non-alloy structural steels - (see EN 10025);
- steels for simple pressure vessels - (see EN 10207);
- non-alloy steel sheet and strip for pressure purposes - (see EN 10028 part 1 - 3);
- reinforcing bars (not for prestressing) - (see prEN 10080¹);
- weldable fine grain structural steel - (see EN 10113 part 1 - 3);
- hot finished structural hollow sections - (see EN 10210-1).

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.

2.1 General standards

EN 10020 Definition and classification of grades of steel

¹) Draft is under discussion.

EN 10021	General technical delivery requirements for steel and iron products
EN 10025	Hot-rolled products of non-alloy structural steels -- Technical delivery conditions
EN 10027-1	Designation systems for steel -- Part 1: Steel names, principal symbols
EN 10027-2	Designation systems for steels -- Part 2: Numerical system
prEN 10052	Vocabulary of heat treatment terms for ferrous products
EN 10079	Definition of steel products
EN 10163	Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections -- Part 1: General requirements Part 2: Plate and wide flats Part 3: Sections
EN 10164	Steel products with improved deformation properties perpendicular to the surface of the product -- Technical delivery conditions
EN 10204	Metallic products -- Types of inspection documents
EURONORM 168 (1986) ²⁾	Iron and steel products -- Inspection documents -- Contents
ECISS IC 10	Designation systems for steel -- Additional symbols for steel names
2.2	<i>Standards on dimensions and tolerances</i>
EN 10029	Hot-rolled steel plates 3 mm thick or above -- Tolerances on dimensions, shape and mass
EN 10051	Continuously hot-rolled uncoated plate, sheet and strip of non-alloy and alloy steels -- Tolerances on dimensions and shape
prEN 10034 ¹⁾	Structural steel I and H sections -- Tolerances on shape and dimensions
prEN 10056-2 ¹⁾	Structural steel equal and unequal leg angles -- Part 2: Tolerances on shape and dimensions
EURONORM 19 (1957) ²⁾	IPE beams: parallel-flanged beams
EURONORM 24 (1962) ²⁾	Standard beams and channel sections -- Tolerances
EURONORM 48 (1984) ²⁾	Specification for hot-rolled narrow steel strip -- Tolerances on dimensions, shape and mass
EURONORM 53 (1962) ²⁾	Wide-flanged beams with parallel flanges
EURONORM 54 (1980) ²⁾	Small hot-rolled steel channels
EURONORM 55 (1980) ²⁾	Hot-rolled equal flange tees with radiused root and toes in steel

1) Draft is under discussion.

2) Until these EURONORMS are transformed into European Standards, they can either be implemented or reference made to the corresponding national standards, the list of which is given in Annex D to this European Standard.

EURONORM 56 (1977)	²⁾ ³⁾	Hot-rolled equal angles (with radiused root and toes)
EURONORM 57 (1978)	²⁾ ³⁾	Hot-rolled unequal angles (with radiused root and toes)
EURONORM 58 (1978)	²⁾	Hot-rolled flats for general purposes
EURONORM 59 (1978)	²⁾	Hot-rolled square bars for general purposes
EURONORM 60 (1977)	²⁾	Hot-rolled round bars for general purposes
EURONORM 91 (1981)	²⁾	Hot-rolled wide flats -- Tolerances on dimensions, shape and mass

2.3 Standards on testing

EN 10002-1		Metallic materials -- Tensile testing -- Part 1: method of test (at ambient temperature)
EN 10045-1		Metallic materials -- Charpy impact test -- Part 1: Test method
EURONORM 18 (1979)	²⁾	Selection and preparation of samples and test pieces for steel and iron and steel products
EURONORM 103 (1971)	²⁾	Microscopic determination of the ferritic and austenitic grain size of steel
ISO 2566/1 (1984)		Steel -- Conversion of elongation values -- Part 1: Carbon and low alloy steels

3 Definitions

For the purposes of this European Standard the following definitions apply.

- 3.1 Alloy special steel as defined in EN 10020,
- 3.2 Heat treatment terms as defined in prEN 10052.
- 3.3 Long products and flat products (plate, sheet, narrow strip, wide strip and wide flats) as defined in EN 10079.
- 3.4 **Normalizing rolling:** a rolling process in which the final deformation is carried out in a certain temperature range leading to a material condition equivalent to that obtained after normalizing so that the specified values of the mechanical properties are retained even after normalizing.
The abbreviated form of this delivery condition is N.

2) Until these EURONORMS are transformed into European Standards, they can either be implemented or reference made to the corresponding national standards, the list of which is given in Annex D to this European Standard.

3) EURONORM 56 and 57 are added because they contain the nominal dimensions.