

SVENSK STANDARD

SS-EN 10223-7:2012



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Ståltråd och trådprodukter för stängsel och nät – Del 7: Svetsade paneler av tråd för inhägnader

Steel wire and wire products for fencing and netting – Part 7: Steel wire welded panels for fencing

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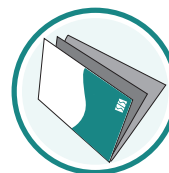
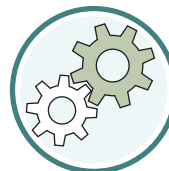
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Europastandarden EN 10223-7:2012 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN 10223-7:2012.

Denna standard ersätter SS-EN 10223-7, utgåva 1.

The European Standard EN 10223-7:2012 has the status of a Swedish Standard. This document contains the official version of EN 10223-7:2012.

This standard supersedes the Swedish Standard SS-EN 10223-7, edition 1.

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EUROPEAN STANDARD

EN 10223-7

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2012

ICS 77.140.65

Supersedes EN 10223-7:2002

English Version

Steel wire and wire products for fencing and netting - Part 7: Steel wire welded panels for fencing

Fils et produits tréfilés en acier pour clôtures et grillages -
Partie 7: Panneaux en acier soudés pour clôturage

Stahldraht und Drahterzeugnisse für Zäune und
Drahtgeflechte - Teil 7: Geschweißte Paneele für Zäune

This European Standard was approved by CEN on 13 October 2012.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 10223-7:2012) has been prepared by Technical Committee ECISS/TC 106 "Wire rod and wires", the secretariat of which is held by AFNOR.

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 May 2013, and conflicting national standards shall be withdrawn at the latest by May 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 10223-7:2002.

EN 10223 "Steel wire and wire products for fencing and netting" consists of the following parts:

- *Part 1: Zinc and zinc-alloy coated steel barbed wire*
- *Part 2: Hexagonal steel wire netting for agricultural, insulation and fencing purposes*
- *Part 3: Hexagonal steel wire mesh products for engineering purposes*
- *Part 4: Steel wire welded mesh fencing*
- *Part 5: Steel wire woven hinged joint and knotted mesh fencing*
- *Part 6: Steel wire chain link fencing*
- *Part 7: Steel wire welded panels for fencing*
- *Part 8: Welded mesh gabion products*

The document has been technically updated.

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

SS-EN 10223-7:2012 (E)

1 Scope

This European Standard specifies requirements for steel wire welded mesh panels for fencing. The panels are used for fencing parks, schools, sport stadia, public buildings, factories, airports, military sites, etc.

This European Standard specifies the general characteristics of welded mesh supplied as panels and recommended coatings, properties and tolerances. This European Standard is applicable to panels made from round or shaped wires not thicker than 10 mm.

The panels have round, rectangular or triangular vertical wires and single or double horizontal wires. The use of V-shaped vertical wires is optional.

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 10204, *Metallic products — Types of inspection documents*

EN 10218-1, *Steel wire and wire products — General — Part 1: Test methods*

EN 10218-2:2012, *Steel wire and wire products — General — Part 2: Wire dimensions and tolerances*

EN 10244-2:2009, *Steel wire and wire products — Non-ferrous metallic coatings on steel wire — Part 2: Zinc or zinc alloy coatings*

EN 10245-1, *Steel wire and wire products — Organic coatings on steel wire — Part 1: General rules*

EN 10245-2, *Steel wire and wire products — Organic coatings on steel wire — Part 2: PVC finished wire*

EN 10245-3, *Steel wire and wire products — Organic coatings on steel wire — Part 3: PE coated wire*

EN 10245-4, *Steel wire and wire products — Organic coatings on steel wire — Part 4: Polyester coated wire*

EN ISO 1461, *Hot dip galvanised coatings on fabricated iron and steel articles — Specifications and test methods (ISO 1461)*

EN ISO 4892-1, *Plastics — Methods of exposure to laboratory light sources — Part 1: General guidance (ISO 4892-1)*

EN ISO 4892-2, *Plastics — Methods of exposure to laboratory light sources — Part 2: Xenon-arc lamps (ISO 4892-2)*

EN ISO 4892-3, *Plastics — Methods of exposure to laboratory light sources — Part 3: Fluorescent UV lamps (ISO 4892-3)*

EN ISO 6270-1, *Paints and varnishes — Determination of resistance to humidity — Part 1: Continuous condensation (ISO 6270-1)*

EN ISO 6988, *Metallic and other non-organic coatings — Sulfur dioxide test with general condensation of moisture (ISO 6988)*

EN ISO 9227, *Corrosion tests in artificial atmospheres — Salt spray tests (ISO 9227)*

3 Terms and definitions

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

3.1

welded panels

panels of various shape and design, made by electrically resistant welding at each wire intersection

Note 1 to entry: The panels can be made out of:

- a) zinc or zinc alloy coated wires (coated before welding);
- b) wires that are subsequently coated after fabrication, either with zinc or zinc alloy.

In either a) or b) the panels may be subsequently organically coated.

3.2

mesh size

distance measured between the centres of two neighbouring wires

Note 1 to entry: Depending on the application, the mesh size can be uniform throughout the panel or varying. A uniform panel is shown in Figure 1.

Dimensions in millimetres

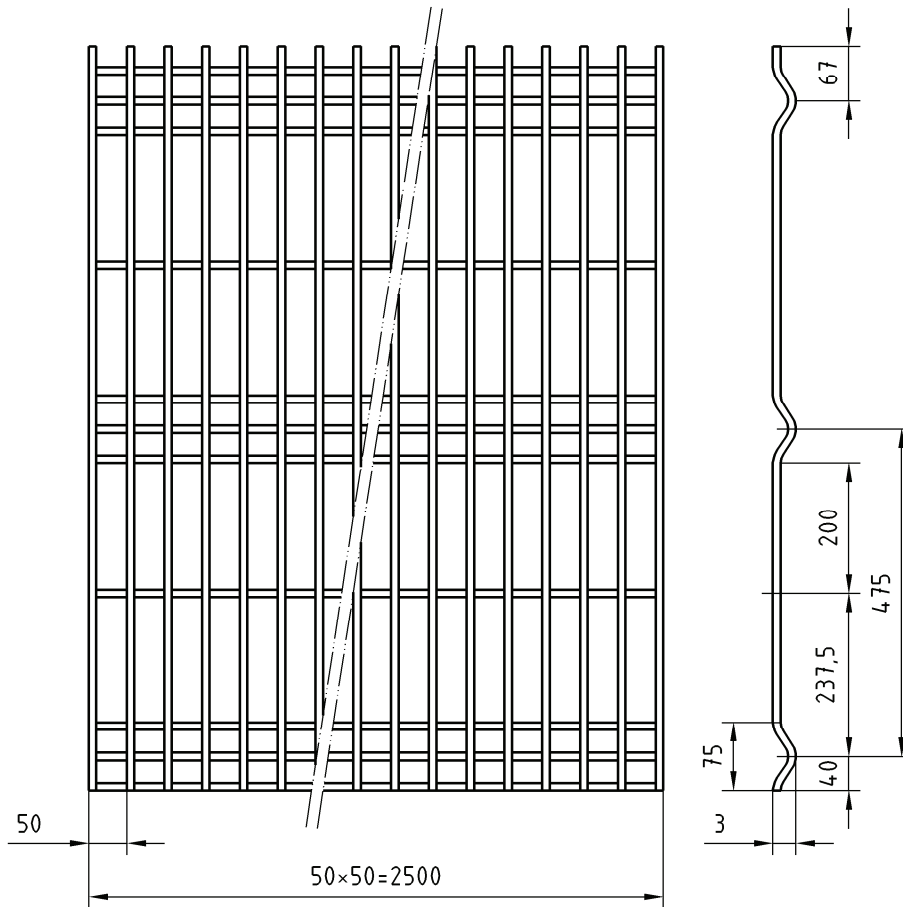


Figure 1 — Uniform panel

3.3 stiffness

stiffness is measured for the flexural strength of the panel along its vertical axis. It is the product of $E.I$ where E is the modulus of elasticity and I is the moment of inertia

4 Information to be obtained from the purchaser

The following information as appropriate shall be obtained from the purchaser at the time of enquiry and/or order:

- the number of this European Standard;
- the quantity and packaging requirements;
- the main characteristic dimensions and length, width and diameters of the wires;
- mesh sizes for a simple and repetitive design;

- e) the grade of zinc or zinc alloy coating and whether applied before or after welding;
- f) whether organic coating is required, and if so, the type and colour;
- g) the tensile strengths of the wires.

5 Designation

The panel shall be designated by:

- a) number of this European Standard;
- b) its length;
- c) its width;
- d) for a simple and repetitive design: the mesh and wire dimensions; for a more complex design: a drawing with wire dimensions, meshes and other ornamental and additional wires;
- e) type and grade of zinc alloy coating and whether applied before or after fabrication;
- f) if subsequently organically coated: the type and colour of the coating.

6 Manufacture

6.1 Base metal

The base metal of the welded mesh panel shall be low carbon steel.

6.2 Fabrication

Panels shall be produced by electrical resistance welded zinc or zinc alloy coated wires or subsequently zinc or zinc alloy coated after fabrication in accordance with EN ISO 1461. No bare patches shall be permitted. Where requested by the purchaser (see 4f), the panel shall be subsequently organically coated in accordance with EN 10245-1 and the other relevant part of EN 10245 depending on the purchaser's specification. The organic coating shall be free from blisters, craters, pin holes or scratches on the base metal, visible from a distance of about 0,5 m. The substrate shall not be visible at any edge.

The type of coating and the colour shall be as specified on the order.

7 Requirements

7.1 Tensile strength

The tensile strength of the horizontal and vertical wire shall be between 350 MPa and 950 MPa. In a delivered lot, the range of tensile strengths of wires shall not differ by more than 200 MPa.

NOTE The tensile strength of the horizontal wire may or may not be the same as the tensile strength of the vertical wire.