SLOVENSKI STANDARD
oSIST prEN 10223-6:2009

01-januar-2009

Jeklena žica in žični izdelki za ograje - 6. del: Jeklen žičnat pletež s štirikotnimi zankami

Steel wire and wire products for fences - Part 6: Steel wire chain link fencing

Stahldraht und Erzeugnisse aus Stahldraht für Zäune - Teil 6: Stahldrahtgeflecht mit viereckigen Maschen

Fils et produits tréfilés en acier pour clôtures - Partie 6: Grillage à simple torsion

Ta slovenski standard je istoveten z: **prEN 10223-6**

ICS:

77.140.65	Jeklene žice, jeklene vrvi in verige	Steel wire, wire ropes and link chains

oSIST prEN 10223-6:2009 **en,fr**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 10223-6

November 2008

ICS 77.140.65

Will supersede EN 10223-6:1998

English Version

Steel wire and wire products for fences - Part 6: Steel wire chain link fencing

Fils et produits tréfilés en acier pour clôtures - Partie 6: Grillage à simple torsion en acier

Stahldraht und Erzeugnisse aus Stahldraht fûr Zäune - Teil 6: Stahldrahtgeflecht mit viereckigen Maschen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee ECISS/TC 30.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Ref. No. prEN 10223-6:2008: E

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Foreword

This document (prEN 10223-6:2008) has been prepared by Technical Committee ECISS/TC 30 “Steel wires”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 10223-6:1998.

The Standard will comprise 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*

1 Scope

This Part of this European Standard specifies dimensions, properties and coatings of steel wire chain link fencing.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 10016-1, Non-alloy steel rod for drawing and/or cold rolling - Part 1 : General requirements

EN 10016-2, *Non-alloy steel rod for drawing and/or cold rolling — Part 2 : Specific requirements for general purposes rod*

EN 10021, *General technical delivery requirements 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, *Steel wire and wire products — General — Part 2: Wire dimensions and tolerances*.

EN 10244-1, *Steel wire and wire products — Non-ferrous metallic coatings on steel wire — Part 1: General principles*.

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

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

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

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

3 Terms and definitions

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

3.1
mesh size
distance measured at right angles internally between adjacent parallel wires (See Figure 1)

3.2
chain link fencing
fencing manufactured from the interlocking of steel wire helices which provide approximately square meshes (See Figure 2)

Chain link fencing may be supplied knuckled (see Figure 3) or with barbed ends, i.e. adjacent pairs of wire ends twisted together and cut at an angle (see Figure 4). Any combination of these two presentations are used for the bottom and top of the fence.

4 Information to be supplied by the purchaser

The following information shall be supplied by the purchaser at the time of enquiry and order:

a) number of this European Standard;

b) quantity and type of winding (tight or loose);

c) zinc or zinc alloy coating type and class and if coating uniformity is to be measured;

d) organic coating type colour and degree of adhesion required;

e) mesh size;

f) wire size;

g) height in metres;

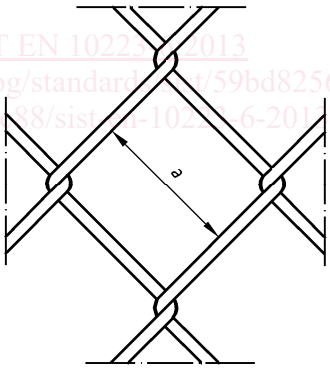
h) length of rolls;

i) whether barbed or knuckled;

j) tensile range;

k) inspection documentation requirements;

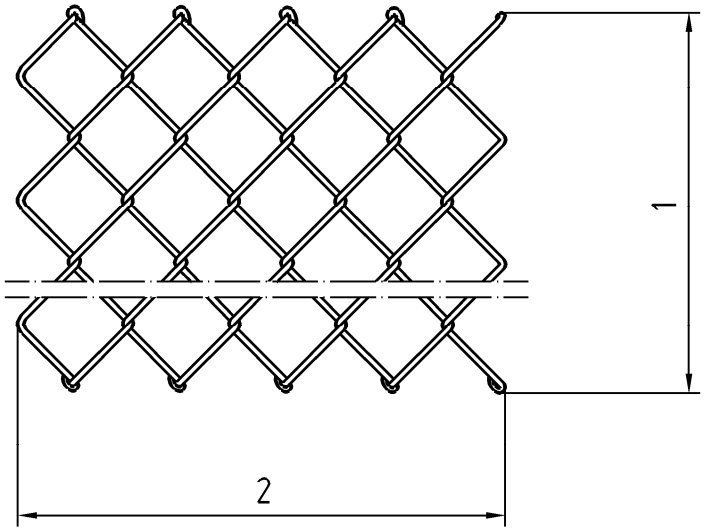
l) agreed quality characteristics for testing (see clause 7).



Key

a Distance measured at right angles

Figure 1 — Mesh size



Key

1 Height
2 Length

Figure 2 — Chain link fencing

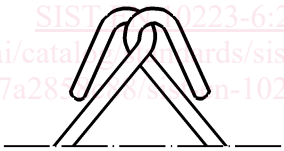


Figure 3 — Knuckled ends

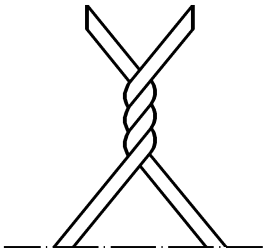


Figure 4 — Barbed ends

5 Manufacture

5.1 Base metal

The base metal of the chain link fencing shall be low carbon steel according to EN 10016-1 and 2. The base wire shall be ordered as low tensile i.e. less than 600 N/mm^2 or high tensile greater than 600 N/mm^2. Within any one supplied lot the tensile spread shall not exceed 150 N/mm^2.

5.2 Fabrication

The fencing shall be fabricated from wires with the following types of coating:

a) zinc or zinc alloy coated to a minimum of EN 10244-1 and EN 10244-2 complying with class A for Zn coatings and class B for Zn95/Al5 alloys (for similar service life), subsequently organic coated to the appropriate part of EN 10245-1, EN 10245-2 or EN 10245-3, either:

   1) extruded, not adherent;

   2) extruded, adherent;

   3) sintered;

b) zinc or zinc alloy coated to a minimum of EN 10244-1 and EN 10244-2 class C, subsequently organic coated to the appropriate part of EN 10245-1, EN 10245-2 or EN 10245-3 either:

   1) extruded, non adherent;

   2) extruded, adherent;

   3) sintered;

c) zinc or zinc alloy coated to a minimum of EN 10244-1 and EN 10244-2 class D, subsequently organic coated to the appropriate part of EN 10245-1, EN 10245-2 or EN 10245-3 either:

   1) extruded, non adherent;

   2) extruded, adherent;

   3) sintered;

d) zinc alloy Zn95/Al5 coated to a minimum of EN 10244-1 and EN 10244-2 class A;

e) zinc coated to a minimum of EN 10244-1 and EN 10244-2 complying with class A for Zn coatings and class B for Zn95/Al5 alloys (for similar service life),;

f) zinc coated to a minimum of EN 10244-1 and EN 10244-2 class C;

g) bright wire subsequently organic coated to the required part of EN 10245-1, EN 10245-2 and EN 10245-3.

6 Requirements

6.1 Tensile strength

The wire shall be either:

— low tensile (less than or equal to 600 N/m^2); or

— high tensile (greater than 600 N/mm^2).

Within any one delivered lot the tensile strength spread shall not exceed 150 N/mm^2.

6.2 Wire diameters, chain link mesh sizes, heights and tolerances

Typical mesh size and tolerances, wire diameters and tolerance on heights are given in Table 1. Typical heights are: 0,5 m, 0,8 m, 0,9 m, 1,0 m, 1,2 m, 1,4 m, 1,5 m, 1,8 m, 2,0 m, 2,1 m, 2,4 m, 2,5 m, 3,0 m, 3,5 m, 3,6 m, 4,0 m.

For the wires which are coated with zinc or zinc alloy the following tolerances on diameter shall apply:

— coated class A to EN 10244-1 and EN 10244-2: T1 of EN 10218-2 (Table 1)

— coated class B to EN 10244-1 and EN 10244-2: T1 of EN 10218-2 (Table 1)

— coated class C to EN 10244-1 and EN 10244-2: T2 of EN 10218-2 (Table 1).

Table 1 — Chain link fencing mesh dimensions and tolerance, typical wire sizes and tolerance on height

Dimensions in millimetres

Mesh		Nominal wire diameter	Tolerance on height
Size	Tolerance		
Zinc alloy/zinc coated			
25	± 2,0	2,0; 2,50	± 30
40	± 4,0	2,0; 2,50; 3,00; 3,55	± 30
45	± 4,0	2,0	± 30
50	± 4,5	2,0; 2,20; 2,50; 3,00; 3,55; 5,00	± 40
60	± 5,0	2,00; 2,20; 2,50; 3,00; 3,55; 5,00	± 50
75	± 5,0	2,50; 3,00	± 60
Organic material (extruded) coating over a zinc/zinc alloy coated or bright wire			
25	± 2,0	1,90/2,65	± 30
40	± 4,0	1,90/2,65; 2,00/3,00; 2,25/3,15; 2,50/3,55	± 30
45	± 4,0	1,70/2,50; 1,80/2,70; 1,90/2,65; 2,25/3,15; 2,50/3,55	± 30
50	± 4,5	1,70/2,50; 1,80/2,70; 2,00/3,00; 2,25/3,15; 2,50/3,55; 3,00/4,00; 3,55/4,75; 4,75/6,40	± 40
60	± 5,0	1,70/2,50; 1,80/2,70; 2,00/3,00; 2,20/3,40; 2,50/3,80; 2,80/4,20; 3,10/4,60; 3,80/5,00	± 50
75	± 5,0	2,00/3,00; 2,25/3,15	± 60