SLOVENSKI STANDARD
SIST EN 10223-8:2014

01-januar-2014

Jeklena žica in žični izdelki za ograje in mreže - 8. del: Varjene mreže za jeklene žičnate košare (gabione)

Steel wire and wire products for fencing and netting - Part 8: Welded mesh gabion products

Stahldraht und Drahterzeugnisse für Zäune und Drahtgeflechte - Teil 8: Geschweißte Gitter für Steinkörbe

Fils et produits tréfilés en acier pour clôtures et grillages - Partie 8: Gabions à mailles soudées

Ta slovenski standard je istoveten z: **EN 10223-8:2013**

ICS:

77.140.65	Jeklene žice, jeklene vrvi in verige	Steel wire, wire ropes and link chains
91.090	Konstrukcije zunaj stavb	External structures

SIST EN 10223-8:2014 **en,fr,de**

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Steel wire and wire products for fencing and netting - Part 8: Welded mesh gabion products

Fils et produits tréfilés en acier pour clôtures et grillages - Partie 8: Gabions à mailles soudées

Stahldraht und Drahterzeugnisse für Zäune und Drahtgeflechte - Teil 8: Geschweißte Gitter für Steinkörbe

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COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN 10223-8:2013) 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of an identical text or by endorsement, at the latest by June 2014, and conflicting national standards shall be withdrawn at the latest by June 2014.

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.

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 civil 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 present document)

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1 Scope

1.1 Subject

This European Standard specifies requirements for the mechanical properties, dimensions, coatings, test methodology and delivery conditions of welded mesh gabions products. The general meaning of welded mesh gabion is a metallic box made of welded wire mesh to be filled with stone or other suitable material.

Only the characteristics of the metallic cage are subject of this document.

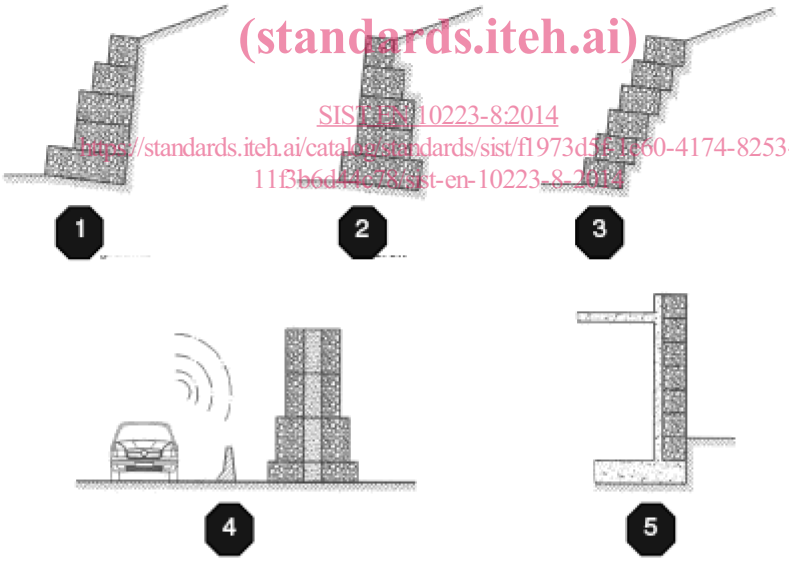
Filling materials, e.g. coarse armourstone, are covered in other standards.

This document covers gabions produced from welded wire fabric and accessories coated with a zinc coating, a hot-dip galvanization or a zinc-aluminium alloy, polyvinyl chloride (PVC) or stainless steel. Accessories include complementary materials such as spiral binders, rings, lacing wires, tie-rods or spacers.

1.2 Intended use

The intended use for the considered construction product is: earth retention, soil reinforcement systems, river training, erosion control purposes, slope retention, sound barriers, fencing, landscaping, covering or cladding as well as architectural purposes.

Figure 1 below shows some relevant examples of applications of gabions.



Key

1 stepped face retaining structure
2 flush face retaining structure
3 slope protection
4 free standing walls, e.g. sound barrier
5 claddings, e.g. for architectural applications

Figure 1 — Example of applications of gabions

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 10088-1, *Stainless steels — Part 1: List of stainless steels*

EN 10218-2:2012, *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 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 ISO 1461, *Hot dip galvanized coatings on fabricated iron and steel articles — Specifications and test methods (ISO 1461)*

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

EN ISO 9223:2012, *Corrosion of metals and alloys — Corrosivity of atmospheres — Classification, determination and estimation (ISO 9223:2012)*

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

EN ISO 16120-2, *Non-alloy steel wire rod for conversion to wire — Part 2: Specific requirements for general-purpose wire rod (ISO 16120-2)*

DIN 50018, *Testing in a saturated atmosphere in the presence of sulfur dioxide*

3 Terms and definitions

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

3.1
gabion
welded wire panelled container, partitioned, of variable size, and filled with stone or other suitable material at the site of use, or to be factory prefilled to form flexible, permeable, monolithic structures such as retaining walls, sea walls, channel linings, revetments, and weirs for erosion control

Note 1 to entry: See Figures 2 a) and 2 b).

3.2
gabion mattress
gabion with a relatively short height in comparison with the width and length dimensions, generally used for river bank, slope protection or anti-scour erosion protection

Note 1 to entry: The inner partitions that divide the cage are called diaphragms and are usually spaced at one metre intervals. At the customer's request, this interval can be reduced. The gabion current sizes are shown in Table 2.

3.3
trapezoidal gabion
gabion of which the width of the lid is smaller than the width of the base

Note 1 to entry: See Figure 2 b).

3.4
bracing tie
length of suitable wire used to brace the gabion either across corners or front to back

3.5
lacing wire
length of suitable wire used to assemble gabions and gabion mattresses

3.6
spirals
spiral binder
spiral binders for gabions; section of steel wire coated with zinc, zinc-aluminium alloy or organic over-coating, or stainless steel wire forming a spiral and used to assemble and interconnect empty gabions and to close and secure the units filled with stone, as a replacement for lacing wire or rings

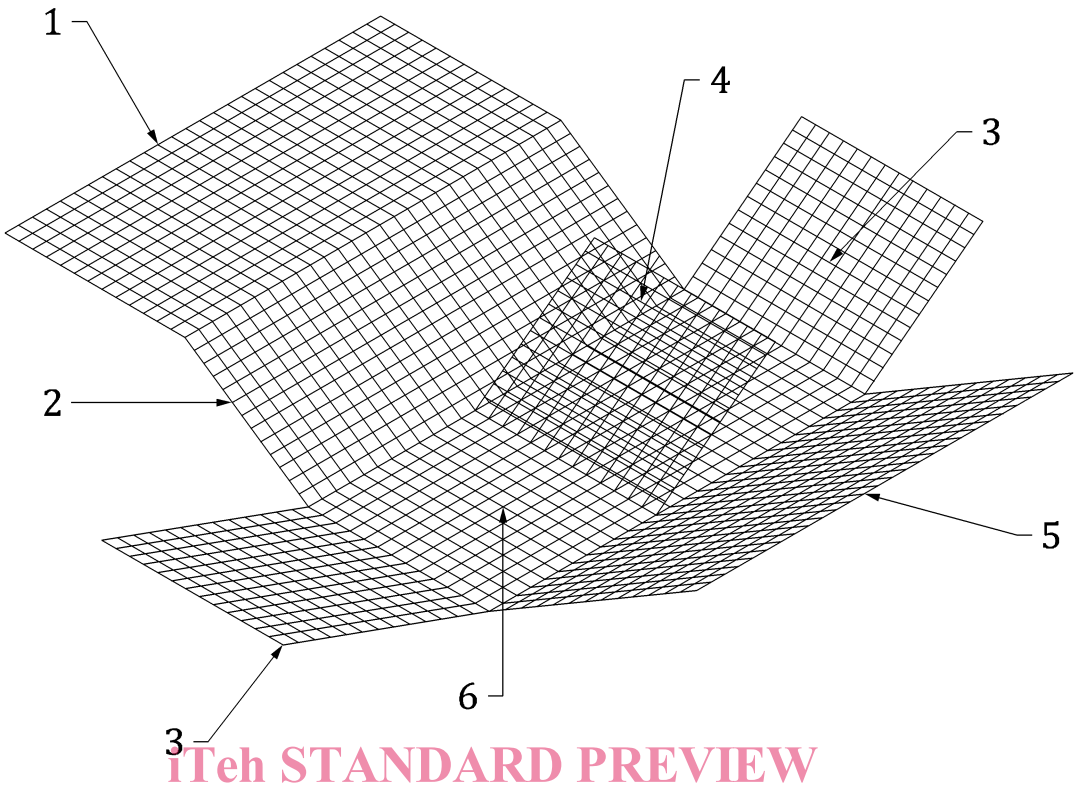
3.7
joining pin
piece of steel wire with J-shaped end, used to attach adjacent gabions assembled by spiral

3.8
gabion ring
C-shaped ring, made from very high resistance zinc or zinc-aluminium alloy coated steel wire or stainless steel wire, used to assemble and interconnect the empty gabions and to close and secure the units filled with stone

3.9
mesh sizes
centre-to-centre distance between two consecutive wires

3.10
looped gabion
gabion existing of panels with looped ends which are connected to each other by locking pins

3.11
locking pin
from metallic coated wire or stainless steel made pin, used to connect panels with looped ends and thus build a looped gabion box or a cellular structure

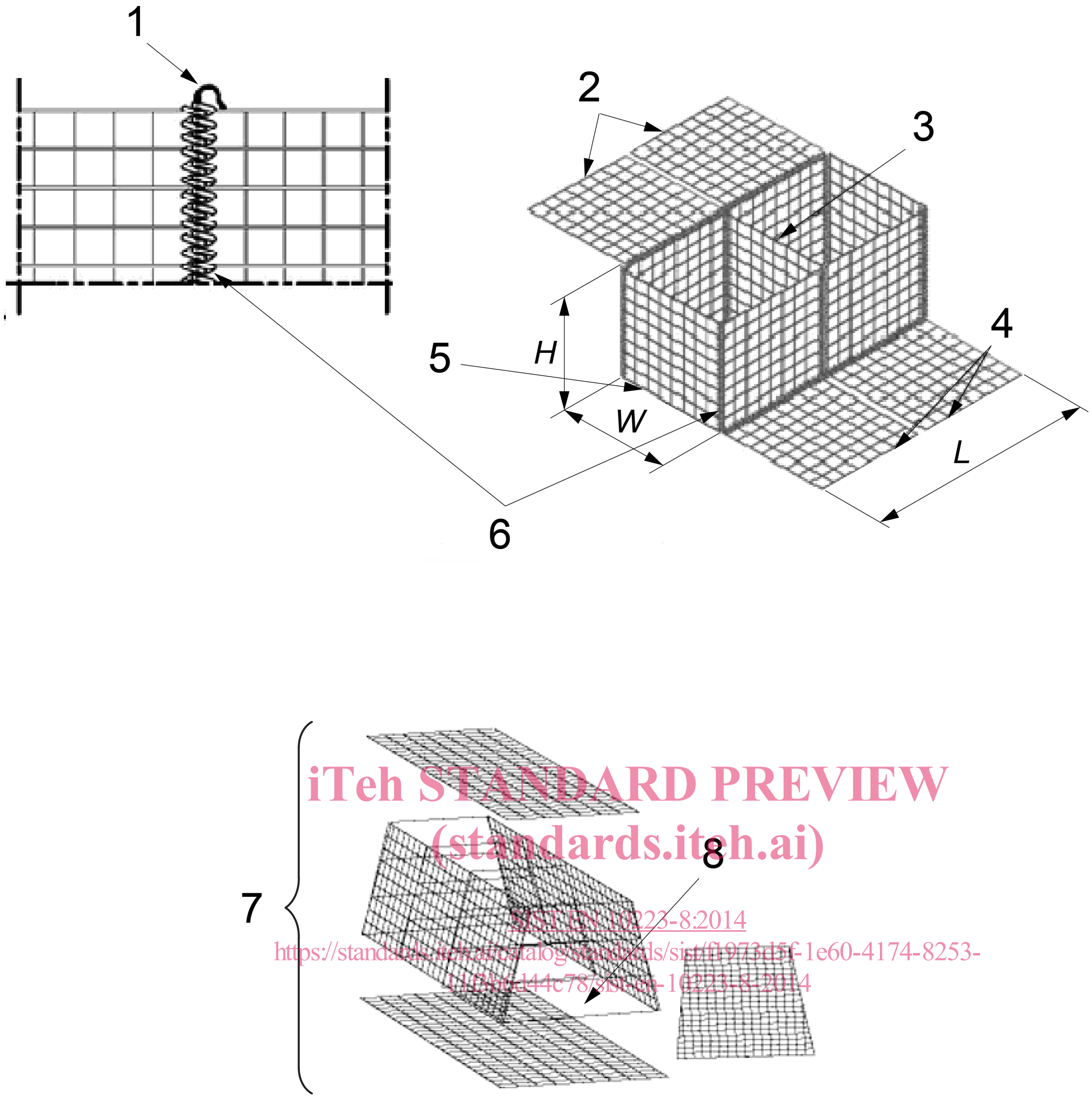


Key

1 lid panel
2 back panel
3 end panel
4 diaphragm panel
5 face panel
6 base panel

Factory assembly of panels: one clip every 225 mm on all joints.

Figure 2 a) — Some illustrations of definitions

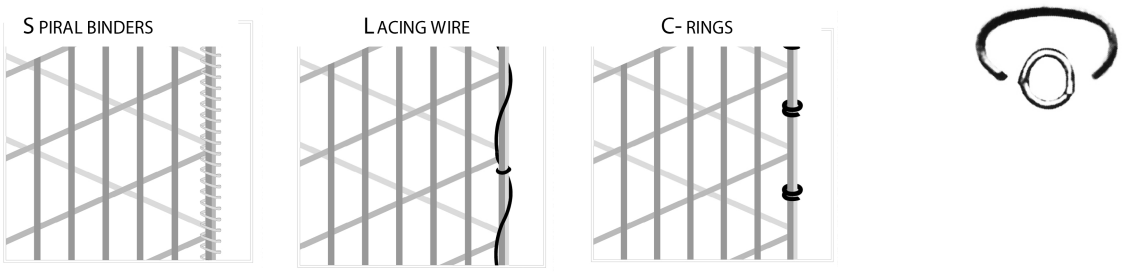


Key

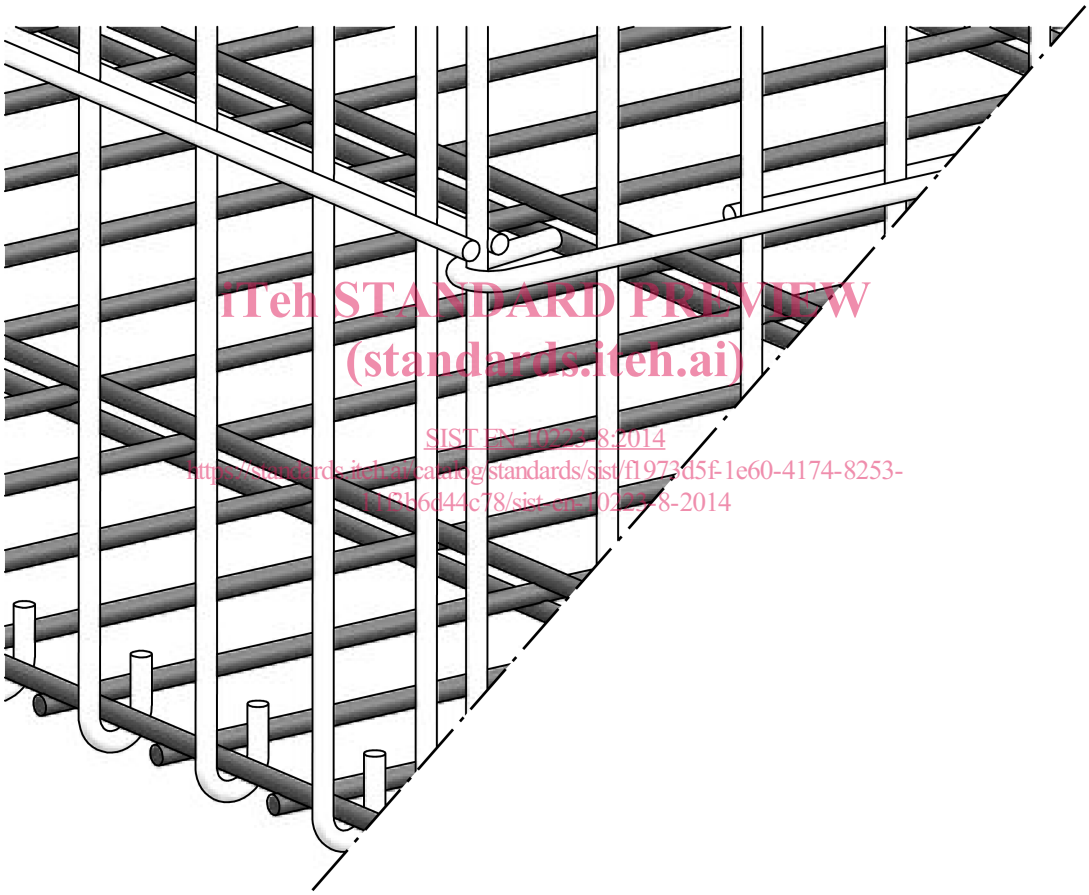
1 joining pin
2 lid
3 diaphragm
4 base
5 end
6 spirals
7 trapezoidal gabion
8 bracing tie
H height
L length
W width

Figure 2 b) — Some illustrations of definitions

Figures 3 a) to 3 d) show various types of jointing systems:



a)



b)