INTERNATIONAL STANDARD

**ISO 1530**

Second edition
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# Fishing nets — Description and designation of knotted netting

*Filets de pêche — Description et désignation des nappes de filet nouées*

Reference number
ISO 1530:2003(E)

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Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
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# Foreword

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 1530 was prepared by the European Committee for Standardization (CEN) in collaboration with Technical Committee ISO/TC 38, *Textiles*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Throughout the text of this document, read "...this European Standard..." to mean "...this International Standard...".

This second edition cancels and replaces the first edition (ISO 1530:1973) which has been technically revised.

# Contents

# Foreword

This document (EN ISO 1530:2003) has been prepared by Technical Committee CEN /TC 248, "Textiles and textile products", the secretariat of which is held by BSI, in collaboration with Technical Committee ISO/TC 38 "Textiles".

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of an identical text or by endorsement, at the latest by September 2003, and conflicting national standards shall be withdrawn at the latest by September 2003.

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, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

# 1 Scope

This European Standard specifies the principal characteristics of knotted netting for fishing nets, and specifies the items of information to be furnished when ordering the netting. It is intended to facilitate the exchange of information between purchasers and suppliers of knotted netting for fishing nets.

NOTE It should be understood that a complete designation of knotted netting and its component yarns will not always form part of a contract. There will be occasions when an order is placed on the basis of a sample or some other basis that does not give a complete indication of the properties of the netting or its component yarns. Nevertheless, it is desirable that the complete range of information should be dealt with in this standard so that a standardized method is available for use on those occasions when it is needed.

# 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 (including amendments).

EN ISO 1107:2003, *Fishing nets — Netting — Basic terms and definitions (ISO 1107:2003)*

ISO 858, *Fishing nets — Designation of netting yarns in the Tex system*

# 3 Principal characteristics of knotted netting

## 3.1 Manufacture

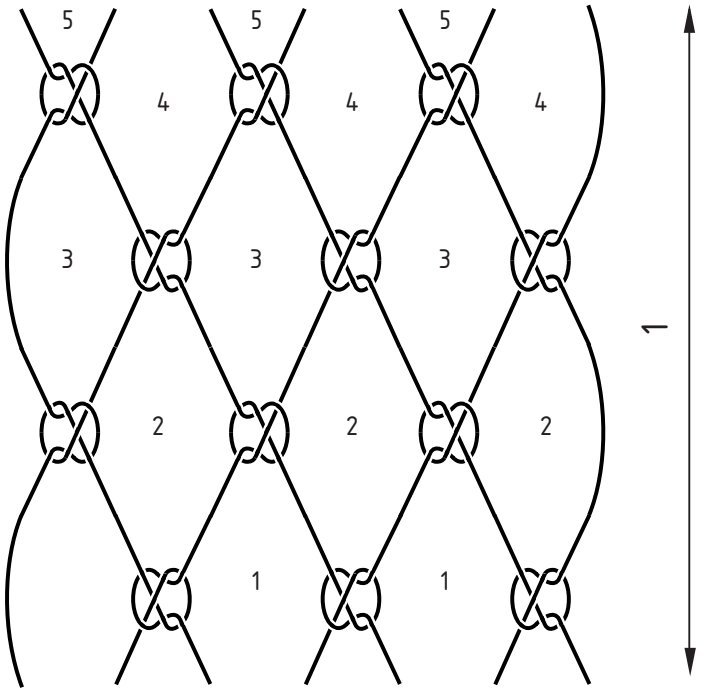
Knotted netting may be manufactured in the two-yarn system (see Figure 1) or in the single-yarn system (see Figure 2).

There are two types of machine made netting, either with all knots formed in the same direction of the sheet netting, called “twisted mesh” (see Figure 3) or with the knots alternately in the opposite direction called “untwisted mesh” (see Figure 4).

All types of knotted netting can be made with a single yarn or with multiple yarns.

## 3.2 Two-yarn system

Knotted netting consisting of two systems of yarns is mostly manufactured on a knotting machine. The yarn of one of the systems runs like a weaving warp from bobbins, while the yarn of the other system is wound on shuttles that guide it towards a hook-shaped or needle-type knotting device.




**Key**

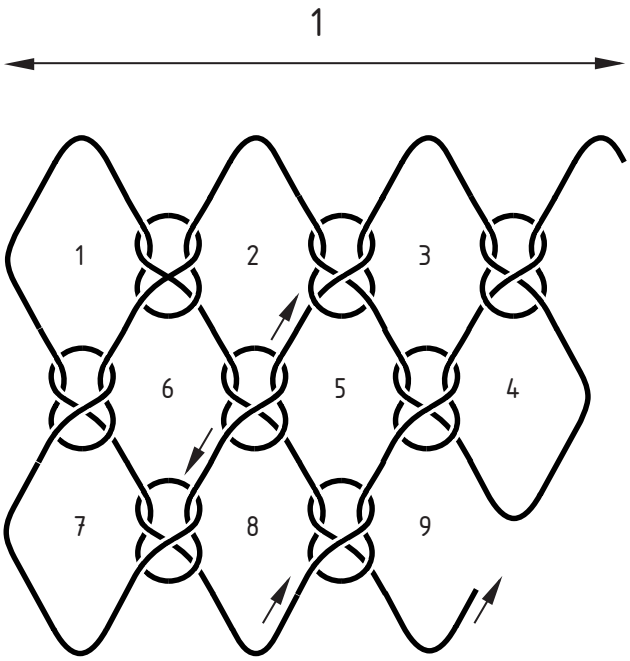
1 General course of the netting yarn

**Figure 1 — Two-yarn system**

Double or multiple yarns can be used in the two-yarn system.

### 3.3 Single-yarn system

Knotted netting consisting of a single-yarn system is mostly hand made. The yarn is wound on a netting needle and all the meshes in the same row are knotted individually one after another. A uniform mesh size may be achieved by the use of a mesh gauge during knotting. If the netting is made as a flat panel, then the netting yarn runs alternately from left to right and from right to left. If the netting is knotted round and round (as a “tube” or “cylinder”), then the yarn proceeds continuously in the same direction.




**Key**

1 General course of the netting yarn

**Figure 2 — Single-yarn system**

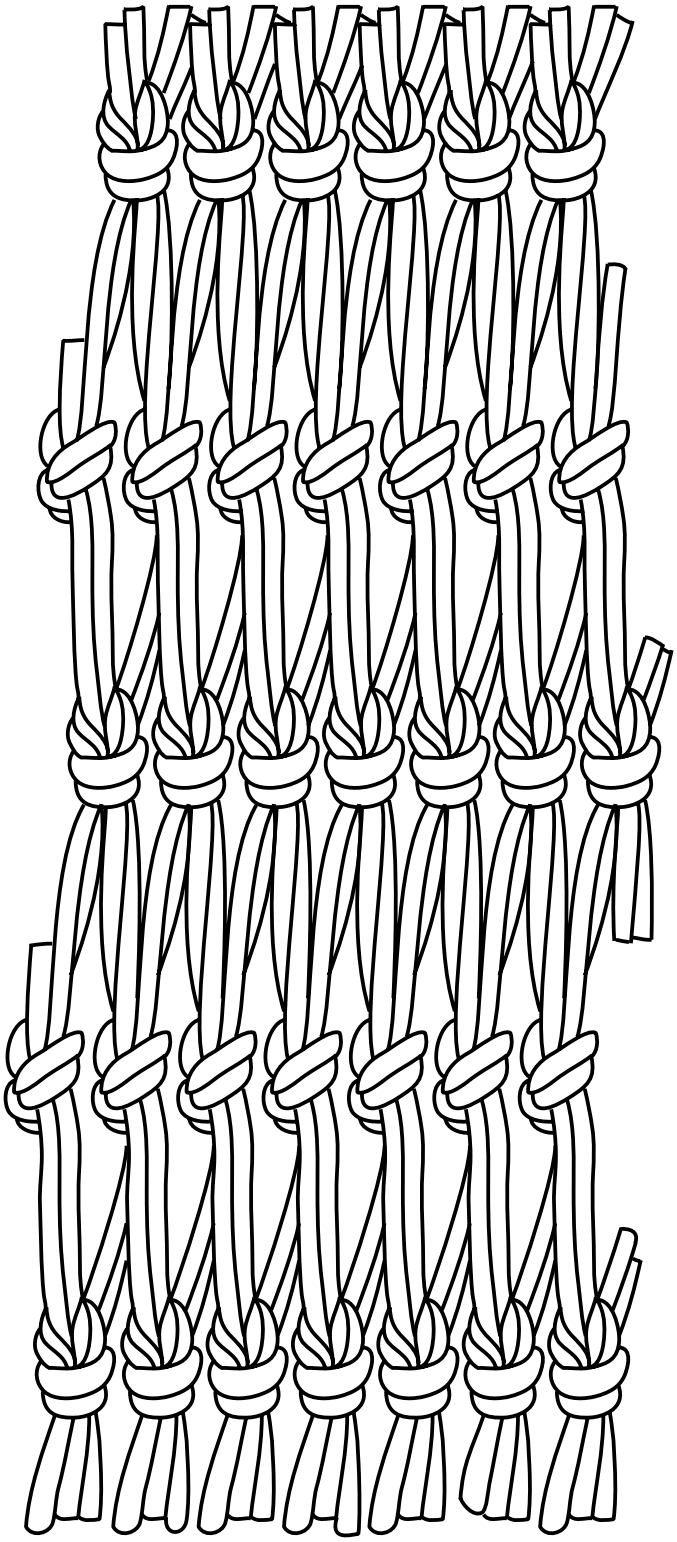


**Figure 3 — Netting with twisted knots**

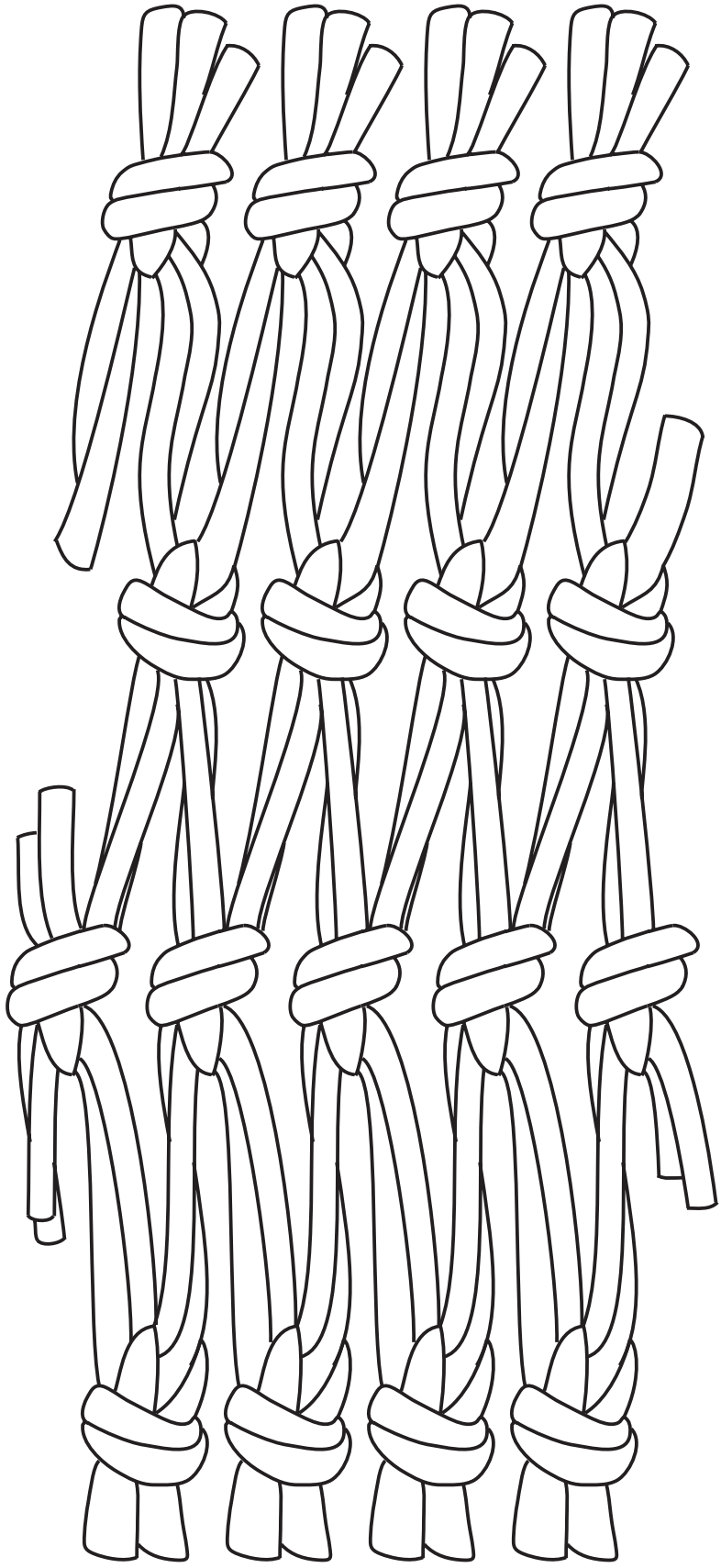


**Figure 4 — Netting with untwisted mesh**

### 3.4 Type of knot

Figures 5, 6, 7 and 8 show the principal types of knot with their customary designations.

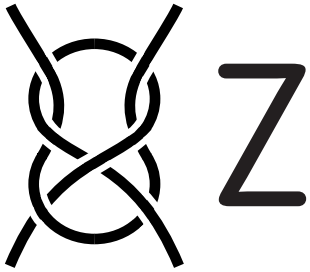



**Figure 5 — Weaver's knot — Z-type**


**Figure 6 — Weaver's knot — S-type**

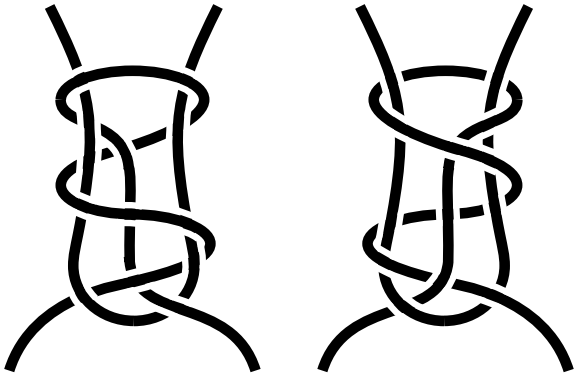


**Figure 7 — Double weaver's knot**

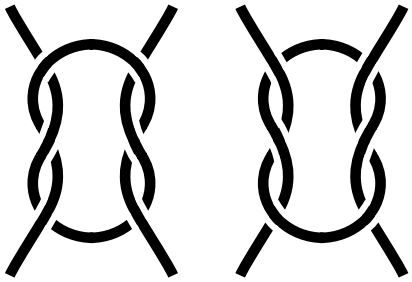


**Figure 8 — Reef knot**

### 3.5 Direction of stretch [1)]

The directions in which netting may be stretched are designated as follows:

a) **N-stretch**, also called depthwise stretch.

b) **T-stretch**, also called lengthwise stretch.

NOTE Netting may be stabilized after stretching, either by chemical or thermal means.

### 3.6 Size of netting and special features

**3.6.1** The number of meshes counted in N-direction are designated as meshes deep or MD. The number of meshes in T-direction are designated as meshes long or ML.

**3.6.2** The size of netting is defined:

— by the number of meshes in the T-direction (meshes long (ML)) and the number of meshes in the N-direction (meshes deep (MD)), joined by the multiplication sign ×, or

— by the number of meshes in one direction and the length indicated in a recognized unit, for example metres, of the other direction, the netting being fully extended while the measurement is made.

**3.6.3** The size of mesh is specified:

a) as length of mesh side;

b) as length of mesh; or

c) as opening of mesh.

1) The term “stretch” in this context indicates *either* the operation of tightening of knots, *or* that of conferring a permanent shape by thermal or other means, *or* a combination of both processes. For the general definition of the symbols N and T for direction in netting see EN ISO 1107.

For mesh size definitions, see EN ISO 1107:2003, 3.4. Length of mesh multiplied by the number of meshes in same direction equals the measured length of netting.

**3.6.4** Special features are sometimes required. These include edge or selvedge meshes for joining or mounting purposes, reinforcement and marking.

## 4 Description of netting yarns

### 4.1 Size

The designation shall follow the requirements specified in ISO 858.

### 4.2 Material

The type of fibre shall be stated. Descriptions of man-made fibre yarns shall indicate whether the yarn is composed, for example, of staple fibres; one or more filaments; textured or bulked yarn or film.

## 5 Information to be exchanged

### 5.1 Indication of use

In order to assist the netting manufacturer to offer the most suitable type of netting for a particular type of fishing net, the ultimate use of the netting shall be made known, for example, for gill-nets, trawl-nets, purse seine nets etc.

### 5.2 Manufacture

The purchaser shall state which type of netting (see 3.1) is required.

### 5.3 Type of knot

If the purchaser has a preference for a particular type of knot (see 3.2), he shall state this in his enquiry or order.

### 5.4 Direction of stretch

The purchaser shall state the direction of stretch required (see 3.3) and whether or not the netting is to be stabilized after stretching.

### 5.5 Size of netting

The purchaser shall specify the relevant details in accordance with 3.6, noting that for size of mesh (see 3.6.3) it is necessary to choose between length of mesh (to be preferred), length of mesh side or opening of mesh, for example “length of mesh 50 mm”.

### 5.6 Netting yarns

If the purchaser requires specific yarns to be used, he shall give details in accordance with clause 4. Failing this, the netting manufacturer may use his discretion but any particulars given relating to the yarns used shall be in accordance with clause 4. Furthermore, the purchaser shall specify if any special treatment (for example, resin bonding) of the netting yarn is required.

### 5.7 Finish of netting

The purchaser shall specify what finishing process (if any) is required. The following are examples of possible processes :

a) White (natural), untreated;

b) White (natural), impregnated;

c) Dyed, without impregnation of other treatment;

d) Dyed and impregnated.

### 5.8 Packing of netting

The purchaser shall advise the supplier on the following:

a) Whether netting should be extended in the N-direction (MD) or in the T-direction (ML) before packing, if this direction is other than the direction of stretch;

b) The method of making-up, for example, lapped or rolled;

c) The type of packaging required.

**ICS 65.150**

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