

**Tekstiiltropid. Ohutus. Osa 4:
Looduslikest ja kunstkiududest
valmistatud tõstetropid
üldotstarbeliseks kasutuseks**

Textile slings - Safety - Part 4: Lifting slings for
general service made from natural and man-made
fibre ropes

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1492-4:2004 sisaldab Euroopa standardi EN 1492-4:2004 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.09.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1492-4:2004 consists of the English text of the European standard EN 1492-4:2004.</p> <p>This document is endorsed on 23.09.2004 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This European Standard specifies the requirements related to safety, including methods of rating and testing single-, two-, three-, four-leg and endless slings, with or without fittings, made of sisal, hemp and manila 3- and 4-strand laid construction natural fibre ropes and polyamide, polyester and polypropylene 3- and 4-strand laid construction and 8-strand plaited construction man-made fibre ropes having a reference number in the range of 16 to 48 inclusive.</p>	<p>Scope: This European Standard specifies the requirements related to safety, including methods of rating and testing single-, two-, three-, four-leg and endless slings, with or without fittings, made of sisal, hemp and manila 3- and 4-strand laid construction natural fibre ropes and polyamide, polyester and polypropylene 3- and 4-strand laid construction and 8-strand plaited construction man-made fibre ropes having a reference number in the range of 16 to 48 inclusive.</p>
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Võtmesõnad: man-made fibres, marking, natural fibres, polyamides, polyesters, polypropylene, properties, rating tests, round sling, safety requirements, sisal ropes, slings, strips, tape, testing, textile fibres, textiles

ICS 53.020.30

English version

Textile slings - Safety - Part 4: Lifting slings for general service made from natural and man-made fibre ropes

Elingues textiles - Sécurité - Partie 4: Elingues de levage en cordage en fibres naturelles et chimiques pour service général

Textile Anschlagmittel - Sicherheit - Teil 4: Anschlag-Faserseile für allgemeine Verwendung aus Natur- und Chemiefaserseilen

This European Standard was approved by CEN on 12 February 2004.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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



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Foreword

This document (EN 1492-4:2004) has been prepared by Technical Committee CEN/TC 168 "Chains, ropes, webbing, slings and accessories - Safety", the secretariat of which is held by BSI.

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 2004 and conflicting national standards shall be withdrawn at the latest by December 2004.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative annex ZA, which is an integral part of this document.

This European Standard is one of a series of standards related to safety for textile slings as listed below:

- Part 1: Specification for flat woven webbing slings, made of man-made fibres, for general purpose use
- Part 2: Specification for roundslings, made of man-made fibres, for general purpose
- Part 4: Specification for lifting slings for general service made from natural and man-made fibre rope

This is the first edition of this part of EN 1492.

In this standard:

Annex A is normative, and gives the requirements for information on use and maintenance to be provided by the manufacturer with fibre rope slings conforming to this standard.

Annex B is informative, and gives the working load limits for different configurations and types of material for fibre rope slings to this standard.

Annex C is informative, and provides some detailed information for use and maintenance which may be appropriate in compiling the information in accordance with annex A.

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

Introduction

This European Standard has been prepared to be a harmonized standard providing one means of complying with the essential safety requirements of the Machinery Directive and associated EFTA regulations.

This European Standard is a type C standard as specified in EN ISO 12100-2. The lifting accessories concerned and the extent to which hazards are covered is indicated in the scope of this standard.

NOTE For hazards that are not covered by this standard, lifting accessories should be in accordance with EN ISO 12100-2.

1 Scope

This European Standard specifies the requirements related to safety, including methods of rating and testing single-, two-, three-, four-leg and endless slings, with or without fittings, made of sisal, hemp and manila 3- and 4-strand laid construction natural fibre ropes and polyamide, polyester and polypropylene 3- and 4-strand laid construction and 8-strand plaited construction man-made fibre ropes having a reference number in the range of 16 to 48 inclusive.

The fibre rope slings covered by this part of EN 1492 are intended for general purpose lifting operations, i.e. when used for lifting objects, materials or goods which require no deviations from the requirements, safety factors or working load limits specified. Lifting operations not covered by this standard would include the lifting of persons, potentially dangerous materials such as molten metal and acids, glass sheets, fissile materials, nuclear reactors and where special conditions apply.

Fibre rope slings conforming to this European Standard are suitable for use and storage in the following temperature ranges:

- a) polyester and polyamide -40°C to 100°C,
- b) manila, sisal, hemp and polypropylene -40°C to 80°C.

This European Standard does not apply to fibre rope sling assemblies rated by the trigonometric method.

This European Standard deals with the technical requirements to minimize the hazards listed in clause 4 which can arise during the use of fibre rope slings when carried out in accordance with the instructions and specification given by the manufacturer or authorized representative.

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 696, *Fibre ropes for general service – Polyamide*

EN 697, *Fibre ropes for general service – Polyester*

EN 698, *Fibre ropes for general service – Manila and sisal*

EN 699, *Fibre ropes for general service - Polypropylene*

EN 1050:1996, *Safety of machinery – Principles of risk assessment*

EN 1261, *Fibre ropes for general service - Hemp*

EN 1677-1, *Components for slings – Safety – Part 1: Forged steel components, Grade 8*

EN 1677-2, *Components for slings – Safety – Part 2: Forged steel lifting hooks with latch, Grade 8*

EN 1677-3, *Components for slings – Safety – Part 3: Forged steel self-locking hooks, Grade 8*

EN 1677-4, *Components for slings – Safety – Part 4: Links, Grade 8*

EN 1677-5, *Components for slings – Safety – Part 5: Forged steel lifting hooks with latch, Grade 4*

EN 1677-6, *Components for slings – Safety – Part 6: Links, Grade 4*

EN 13411-1, *Terminations for steel wire ropes – Safety – Part 1: Thimbles for steel wire rope slings*

EN ISO 1968:2004, *Fibre ropes and cordage - Terms and definitions (ISO 1968:2004)*

EN ISO 7500-1:1999, *Metallic materials - Verification of static uniaxial testing machines - Part 1: Tension/compression testing machines (ISO 7500-1:1999)*

EN ISO 12100-2, *Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles (ISO 12100-2:2003)*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN ISO 1968:2004 and the following apply.

3.1

fibre rope sling

flexible sling comprising one or more parts of identical fibre rope, terminating in spliced eyes with or without thimbles and fittings, or in the case of an endless sling, joined to itself with a splice

3.2

multi-leg sling

fibre rope sling assembly, consisting of two, three or four identical legs attached to a master link

3.3

splice

specified method of laying the tail end strands of the rope into the strands of the standing part of the rope to form an eye or join the ends of the rope together

3.4

soft eye

eye made by forming the end of the rope into a loop and by splicing the free end to the standing part

3.5

thimbled or hard eye

spliced eye containing a rigid thimble