



SLOVENSKI STANDARD
SIST EN 14686:2005
01-marec-2005

Vlaknene vrvi iz poliestrskih/poliolefinskih dvojnih vlaken

Fibre ropes of polyester/polyolefin dual fibres

Faserseile Polyester/Polyolefin-Doppelfaser

Cordages en fibres bi-matériaux polyester/polyoléfines

Ta slovenski standard je istoveten z: EN 14686:2004

[SIST EN 14686:2005](https://standards.iteh.ai/catalog/standards/sist/6d42a83f-d7dc-415b-8210-0b7b15808887/sist-en-14686-2005)

<https://standards.iteh.ai/catalog/standards/sist/6d42a83f-d7dc-415b-8210-0b7b15808887/sist-en-14686-2005>

ICS:

59.080.50 Vrvi Ropes

SIST EN 14686:2005 **en**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 14686:2005](#)

<https://standards.iteh.ai/catalog/standards/sist/6d42a83f-d7dc-415b-8210-0b7b15808887/sist-en-14686-2005>

EUROPEAN STANDARD

EN 14686

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2004

ICS 59.080.50

English version

Fibre ropes of polyester/polyolefin dual fibres

Cordages en fibres bi-matériaux polyester/polyoléfines

Faserseile Polyester/Polyolefin-Doppelfaser

This European Standard was approved by CEN on 23 September 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.

(standards.iteh.ai)

SIST EN 14686:2005

<https://standards.iteh.ai/catalog/standards/sist/6d42a83f-d7dc-415b-8210-0b7b15808887/sist-en-14686-2005>



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

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

Contents

	Page
Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Designation	4
5 Materials	5
6 General requirements.....	5
7 Physical properties.....	6
8 Marking	11

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 14686:2005](#)

<https://standards.iteh.ai/catalog/standards/sist/6d42a83f-d7dc-415b-8210-0b7b15808887/sist-en-14686-2005>

Foreword

This document (EN 14686:2004) has been prepared by Technical Committee CEN/TC 248 "Textiles and textile products", 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 May 2005, and conflicting national standards shall be withdrawn at the latest by May 2005.

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.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 14686:2005](#)

<https://standards.iteh.ai/catalog/standards/sist/6d42a83f-d7dc-415b-8210-0b7b15808887/sist-en-14686-2005>

EN 14686:2004 (E)**1 Scope**

This document specifies requirements for 3-strand hawser-laid, 8 strand and 12 strand braided ropes made of polyester in combination with polyolefin and it gives rules for their designation.

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 ISO 1968:2004, *Fibre ropes and cordage — Vocabulary (ISO 1968:2004)*

prEN ISO 2307, *Fibre ropes — Determination of certain physical and mechanical properties (ISO/DIS 2307:2003)*

prEN ISO 9554:2003, *Fibre ropes — General specifications (ISO/DIS 9554:2003)*

3 Terms and definitions

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

4 Designation

Fibre ropes shall be designated by

- the words "fibre rope";
- number of this document;
- construction or type of rope (see clause 6);
- reference number of the rope;
- materials from which the rope is made;
- level of performance of rope : fibre rope or higher strength (*hs*) fibre rope.

EXAMPLE:

Designation of a 3-strand hawser-laid rope (reference number 20 (type A) corresponding to a linear density of 194 ktex made of polyester/polyolefin dual fibre:

Fibre rope EN 14686 - A - 20 - polyester/polyolefin

EXAMPLE:

Designation of a 12-strand braided rope (reference number 20 (type T) corresponding to a linear density of 221 ktex made of higher strength polyester/polyolefin dual fibre:

Fibre rope EN 14686 - T - 20 - polyester/polyolefin (*hs*)

5 Materials

5.1 Fibres

5.1.1 Polyester: the polyester portion of the rope shall be continuous multifilament, heat and light resistant fibre of industrial (high tenacity) grade.

5.1.2 Polyolefin: the polyolefin portion of the rope shall be of suitable tenacity to meet all the requirements of this specification.

NOTE Polyolefin may be polypropylene or a mix of polypropylene and polyethylene with a minimum of 15 % and a maximum of 50 % of polyethylene.

5.2 Yarns

5.2.1 The cover yarns of each strand of fibre ropes shall be made with polyester fibres covering a polyolefin core and shall contain a minimum of 40 % by weight of polyester fibre (see Tables 1 and 2).

NOTE When inside yarns are used, they may consist of 100 % polyolefin fibres.

5.2.2 All the yarns used in higher strength fibre ropes shall be made with polyester fibres of dual fibre.

6 General requirements

6.1 Polyester/polyolefin dual fibre ropes shall be made in one of the following constructions:

- type A: 3-strand hawser-laid rope (see Figure 1),
- type L: 8-strand braided rope (see Figure 2);
- type T: 12-strand braided rope (see Figure 3).

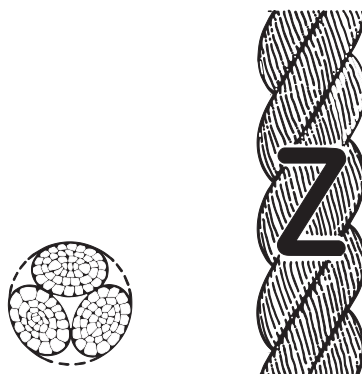
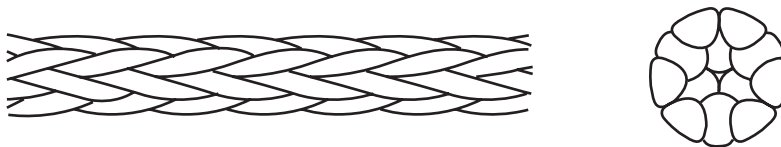


Figure 1 — Shape of a 3-strand hawser-laid rope (type A)



Figure 2 — Shape of an 8-strand braided rope (type L)



iTeh STANDARD PREVIEW
(standards.iteh.ai)

Figure 3 — Shape of a 12-strand braided rope (type T)

[SIST EN 14686:2005](https://standards.iteh.ai/catalog/standards/sist/6d42a83f-d7dc-415b-8210-0b7b15808887/sist-en-14686-2005)

<https://standards.iteh.ai/catalog/standards/sist/6d42a83f-d7dc-415b-8210-0b7b15808887/sist-en-14686-2005>

6.2 Construction, manufacture, lay, labelling, packaging, invoicing and delivery lengths shall conform to prEN ISO 9554.

7 Physical properties

Linear density and minimum breaking force shall conform to Tables 1, 2, 3 and 4.

Table 1 — Fibre ropes : 3-strand hawser-laid rope (type A) of polyester/polyolefin dual fibres

Reference number ^{a)}	Linear density ^{b) c)}		Minimum breaking force ^{d) e) f)} kN
	Nominal ktex	Tolerance	
6	17,5	± 10 %	6,8
8	31,0		11,9
9	39,3		14,9
10	48,5	± 8 %	18,2
12	69,9		25,7
14	95,1		34,7
16	124	± 5 %	44,8
18	157		56,1
20	194		68,7
22	235		82,1
24	279		96,3
26	328		113
28	380		130
30	437		148
32	497		167
36	629		210
40	776		257
44	939		308
48	1 110		364
52	1 320		424
56	1 520		489
60	1 750		558
64	1 990	631	
68	2 250	707	
72	2 520	789	
80	3 110	963	
88	3 750	1 160	
96	4 470	1 370	
104	5 260	1 590	
112	6 050	1 840	
120	6 980	2 100	
128	7 950	2 370	
136	8 950	2 660	
144	10 100	2 970	
152	11 300	3 290	
160	12 500	3 630	

a) The reference number corresponds to the approximate diameter in millimetres.

b) The linear density (in kilotex) corresponds to the net mass per length of the rope, expressed in grams per metre or in kilograms per thousand metres.

c) The linear density is under reference tension and is measured as specified in prEN ISO 2307.

d) The breaking forces quoted above relate to new dry and wet ropes.

e) Minimum values shall be reduced by 10 % in the case of a rope with eye spliced terminations.

f) A force determined by the test methods as specified in prEN ISO 2307 is not necessarily an accurate indication of the force at which that rope might break in other circumstances and situations. Type and quality of termination rate of force application, prior conditioning and previous force applications to the rope can significantly influence the breaking force. A rope bent around a post, capstan, pulley or sheave may break at a significantly lower force. A knot or other distortion in a rope may significantly reduce the breaking force.