



NSAI
Standards

Irish Standard
I.S. EN ISO 9554:2019

Fibre ropes - General specifications (ISO 9554:2019)

I.S. EN ISO 9554:2019

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

EN ISO 9554:2019

Published:

2019-09-04

This document was published under the authority of the NSAI and comes into effect on:

2019-09-22

ICS number:

59.080.50

NOTE: If blank see CEN/CENELEC cover page

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN ISO 9554:2019 is the adopted Irish version of the European Document EN ISO 9554:2019, Fibre ropes - General specifications (ISO 9554:2019)

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This page is intentionally left blank

EUROPEAN STANDARD

EN ISO 9554

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2019

ICS 59.080.50

Supersedes EN ISO 9554:2010

English Version

Fibre ropes - General specifications (ISO 9554:2019)

Cordages en fibres - Spécifications générales (ISO 9554:2019)

Faserseile - Allgemeine Festlegungen (ISO 9554:2019)

This European Standard was approved by CEN on 7 July 2019.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN ISO 9554:2019 (E)

Contents	Page
European foreword.....	3

European foreword

This document (EN ISO 9554:2019) has been prepared by Technical Committee ISO/TC 38 "Textiles" in collaboration with 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 March 2020, and conflicting national standards shall be withdrawn at the latest by March 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 9554:2010.

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

Endorsement notice

The text of ISO 9554:2019 has been approved by CEN as EN ISO 9554:2019 without any modification.

This page is intentionally left blank

**INTERNATIONAL
STANDARD**

**ISO
9554**

Fourth edition
2019-07

Fibre ropes — General specifications

Cordages en fibres — Spécifications générales



Reference number
ISO 9554:2019(E)

© ISO 2019

ISO 9554:2019(E)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2019

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Manufacture	2
4.1 Constituent materials.....	2
4.2 Construction and structure.....	2
4.2.1 Laid ropes.....	2
4.2.2 Braided ropes.....	2
4.2.3 Double-braided ropes.....	2
4.2.4 Covered ropes.....	3
4.2.5 Strands.....	3
4.2.6 Lay length or braid pitch.....	3
4.3 Treatment.....	3
4.3.1 Polyamide and polyester ropes.....	3
4.3.2 Polypropylene and polyethylene ropes.....	3
4.3.3 High modulus polyethylene ropes.....	4
4.3.4 Manila and sisal.....	4
4.4 Workmanship.....	4
5 Rope design	5
6 Requirements	5
7 Marking and labelling	6
7.1 Marking.....	6
7.1.1 General.....	6
7.1.2 Ropes of reference number less than 14.....	6
7.1.3 Ropes of reference number equal to or greater than 14.....	6
7.2 Labelling.....	6
8 Packaging, invoicing and delivered length	6
8.1 Packaging and invoicing.....	6
8.2 Delivered length.....	7
8.2.1 Standard delivered length.....	7
8.2.2 Shorter delivered length due to sampling.....	7
9 Testing	7
10 Visual quality control	7
10.1 Responsibility for inspection.....	7
10.2 Finished-rope visual control.....	8
11 Manufacturer declaration	8
12 Instructions for use	8
Annex A (informative) Typical characteristics of the yarns for man-made and natural fibres used in ropes, slings and netting	9
Annex B (informative) Information on defects and variances	14
Annex C (informative) Information for use and maintenance to be provided by the manufacturer	16
Annex D (informative) Determining minimum breaking strength	28
Bibliography	38

ISO 9554:2019(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 38, *Textiles*.

This fourth edition cancels and replaces the third edition (ISO 9554:2010), which has been technically revised. The main changes compared to the previous edition are as follows:

- methodology for rope design and strength realization factor has been introduced;
- strand interchanges have been introduced;
- [Table A.1](#) has been updated;
- [Annex C](#) has been updated.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Fibre ropes — General specifications

IMPORTANT — It is the responsibility of the user to select a rope that is fit for purpose, i.e. of the right size and with the physical properties that meet the requirements of the application and to determine the limitations prior to its use.

1 Scope

This document specifies the general characteristics of fibre ropes and their constituent materials. It is intended to be used in conjunction with the standards for the individual types of fibre rope, which cover the physical properties and specific requirements for that particular product type.

This document also gives some information on the use of fibre ropes and also on their inspection and retirement criteria.

This document does not intend to address all of the safety matters associated with its use.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 1968, *Fibre ropes and cordage — Vocabulary*

ISO 2307, *Fibre ropes — Determination of certain physical and mechanical properties*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

strand interchange

overlapping continuation, in a braided rope, of a single interrupted strand (or multiple strand) with another identical strand which follows an identical path in the braid

3.2

minimum breaking strength

MBS

force a fibre rope shall at least achieve when tested following a recognized procedure/test method

Note 1 to entry: The MBS is set by each manufacturer, as per their own internal statistical methods based on breaking tests. In [Annex D](#), two statistical methods are given that can be used to determine the MBS.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-