

This is a preview of "DS/ISO 2307:2019". [Click here to purchase the full version from the ANSI store.](#)

Tovværk – Bestemmelse af visse fysiske og mekaniske egenskaber

Fibre ropes – Determination of certain physical and mechanical properties



DANSK STANDARD
Danish Standards Association

Göteborg Plads 1
DK-2150 Nordhavn

Tel: +45 39 96 61 01

Tel: +45 39 96 61 01

dansk.standard@ds.dk

www.ds.dk

This is a preview of "DS/ISO 2307:2019". [Click here to purchase the full version from the ANSI store.](#)

DS projekt: M327536

ICS: 59.080.50

Første del af denne publikations betegnelse er:

DS/ISO, hvilket betyder, at det er en international standard, der har status som dansk standard.

Denne publikations overensstemmelse er:

IDT med: ISO 2307:2019

DS-publikationen er på engelsk.

DS-publikationstyper

Dansk Standard udgiver forskellige publikationstyper.

Typen på denne publikation fremgår af forsiden.

Der kan være tale om:

Dansk standard

- standard, der er udarbejdet på nationalt niveau, eller som er baseret på et andet lands nationale standard, eller
- standard, der er udarbejdet på internationalt og/eller europæisk niveau, og som har fået status som dansk standard

DS-information

- publikation, der er udarbejdet på nationalt niveau, og som ikke har opnået status som standard, eller
- publikation, der er udarbejdet på internationalt og/eller europæisk niveau, og som ikke har fået status som standard, fx en teknisk rapport, eller
- europæisk præstandard

DS-håndbog

- samling af standarder, eventuelt suppleret med informativt materiale

DS-hæfte

- publikation med informativt materiale

Til disse publikationstyper kan endvidere udgives

- tillæg og rettelsesblade

DS-publikationsform

Publikationstyperne udgives i forskellig form som henholdsvis

- fuldtjekstpublikation (publikationen er trykt i sin helhed)
- godkendelsesblad (publikationen leveres i kopi med et trykt DS-omslag)
- elektronisk (publikationen leveres på et elektronisk medie)

DS-betegnelse

Alle DS-publikationers betegnelse begynder med DS efterfulgt af et eller flere præfikser og et nr., fx **DS 383**, **DS/EN 5414** osv. Hvis der efter nr. er angivet et **A** eller **Cor**, betyder det, enten at det er et **tillæg** eller et **rettelsesblad** til hovedstandard, eller at det er indført i hovedstandard.

DS-betegnelse angives på forsiden.

Overensstemmelse med anden publikation:

Overensstemmelse kan enten være IDT, EQV, NEQ eller MOD

- **IDT:** Når publikationen er identisk med en given publikation.
- **EQV:** Når publikationen teknisk er i overensstemmelse med en given publikation, men præsentationen er ændret.
- **NEQ:** Når publikationen teknisk eller præsentationsmæssigt ikke er i overensstemmelse med en given standard, men udarbejdet på baggrund af denne.
- **MOD:** Når publikationen er modificeret i forhold til en given publikation.

This is a preview of "DS/ISO 2307:2019". [Click here to purchase the full version from the ANSI store.](#)

Fifth edition
2019-07-15

Fibre ropes — Determination of certain physical and mechanical properties

*Cordages en fibres — Détermination de certaines caractéristiques
physiques et mécaniques*



Reference number
ISO 2307:2019(E)

© ISO 2019

This is a preview of "DS/ISO 2307:2019". [Click here to purchase the full version from the ANSI store.](#)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2019, Published in Switzerland

All rights reserved. Unless otherwise specified, 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
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

This is a preview of "DS/ISO 2307:2019". [Click here to purchase the full version from the ANSI store.](#)

Contents

Page

Foreword	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	2
4.1 Calculation of the linear density.....	2
4.2 Measurement of the diameter, lay length and braid pitch.....	2
4.3 Measurement of the elongation of the rope.....	2
4.4 Measurement of the breaking force.....	2
5 Apparatus	2
6 Sampling	3
6.1 Composition of the batch to be sampled.....	3
6.2 Sample size.....	3
6.3 Selection of samples.....	3
7 Test pieces for tensile testing and force-elongation measurements	3
7.1 Length.....	3
7.2 Number of test pieces.....	3
7.3 Taking the test pieces.....	3
8 Conditioning	4
9 Procedure	4
9.1 General.....	4
9.2 Initial measurements.....	4
9.3 Mounting the test piece on the testing machine.....	4
9.4 Measurement of diameter, lay length or braid pitch and gauge length.....	6
9.5 Bedding-in of the test piece.....	7
9.6 Measurement of the elongation of the rope.....	8
9.7 Measurement of the breaking force.....	8
10 Linear density	8
11 Expression of results	9
11.1 General.....	9
11.2 Linear density, ρ_1	9
11.3 Diameter, lay length or braid pitch.....	9
11.4 Elongation.....	9
11.5 Actual breaking force.....	10
12 Determination of water repellency	10
12.1 General.....	10
12.2 Principle.....	10
12.3 Test pieces.....	10
12.3.1 General.....	10
12.3.2 Whipping.....	10
12.3.3 Cutting the samples.....	10
12.3.4 Sealing.....	10
12.4 Procedure.....	11
12.4.1 First weighing.....	11
12.4.2 Second weighing.....	11
12.4.3 Third weighing.....	11
12.4.4 Drying the specimens.....	11
12.4.5 Fourth, fifth and sixth weighing.....	11
12.5 Results of tests.....	11

This is a preview of "DS/ISO 2307:2019". [Click here to purchase the full version from the ANSI store.](#)

13	Determination of lubrication and finish content	11
13.1	General.....	11
13.2	Reagents.....	11
13.3	Preparation of samples.....	12
13.4	Determination of water content.....	12
13.5	Determination of lubrication and finish content.....	12
13.6	Calculation of lubrication and finish content.....	12
14	Test report	12
Annex A	(normative) Reference tension	13
Annex B	(informative) Alternative procedures for ropes with high breaking forces	14
Annex C	(normative) Determination of the force-elongation coordinates on a separate test piece	20
Annex D	(informative) Test report — Fibre ropes	21
Bibliography	22

This is a preview of "DS/ISO 2307:2019". [Click here to purchase the full version from the ANSI store.](#)

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 fifth edition cancels and replaces the fourth edition (ISO 2307:2010), which has been technically revised. The main changes compared to the previous edition are as follows:

- inclusion of diameter in the scope, and describe methods to measure it;
- changes in test length;
- changes in test speed;
- inclusion of another method for determination of realization factor in [Annex B](#);
- addition of a sample of a test report ([Annex D](#)).

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.

This is a preview of "DS/ISO 2307:2019". [Click here to purchase the full version from the ANSI store.](#)

This is a preview of "DS/ISO 2307:2019". [Click here to purchase the full version from the ANSI store.](#)

Fibre ropes — Determination of certain physical and mechanical properties

1 Scope

This document specifies, for ropes of different kinds, a method of determining each of the following characteristics:

- linear density;
- diameter;
- lay length;
- braid pitch;
- elongation;
- breaking force.

This document also provides a method for measuring water repellence, lubrication and finish content, when requested by the customer.

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 139](#), *Textiles — Standard atmospheres for conditioning and testing*

[ISO 1968](#), *Fibre ropes and cordage — Vocabulary*

[ISO 9554](#), *Fibre ropes — General specifications*