INTERNATIONAL STANDARD

ISO 1346

Fifth edition
2021-04

Fibre ropes — Polypropylene split film, monofilament and multifilament (PP2) and polypropylene high-tenacity multifilament (PP3) — 3-, 4-, 8- and 12-strand ropes

Cordages en fibres — Film fibrillé, monofilament et multifilament de polypropylène (PP2) et multifilament de polypropylène haute ténacité (PP3) — Cordages à 3, 4, 8 et 12 torons

Reference number
ISO 1346:2021(E)

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Published in Switzerland

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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*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 248, *Textiles and textile products*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fifth edition cancels and replaces the fourth edition (ISO 1346:2012), which has been technically revised.

The main changes compared to the previous edition are as follows:

— in the Scope, a statement specifying that the document does not cover all variations in strength or product performance has been added;

— in Clause 3, the term "minimum breaking strength" has been added;

— in Table 1, Table 2 and Table 3, the tolerances in linear density have been modified.

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 — Polypropylene split film, monofilament and multifilament (PP2) and polypropylene high-tenacity multifilament (PP3) — 3-, 4-, 8- and 12-strand ropes

1 Scope

This document specifies requirements for 3-strand hawser-laid and 4-strand shroud-laid ropes, 8-strand braided ropes and 12-strand braided ropes for general service made of polypropylene, and gives rules for their designation.

This document does not cover all variations in strength or product performance. The rope manufacturer is consulted to ensure the intended design meets the requirements of the application

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*

ISO 9554, *Fibre ropes — General specifications*

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
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 ISO 9554:2019, Annex D, two statistical methods are given that can be used to determine the MBS.

[SOURCE: ISO 9554:2019, 3.2]

4 Designation

Fibre ropes shall be designated by

— the words “fibre rope”,

— the number of this document, i.e. ISO 1346,

— the construction or type of rope (see Clause 5),

— the reference number of the rope,

— the material from which the rope is made:

1) PP2: polypropylene split film, monofilament and multifilament,

2) PP3: polypropylene high-tenacity multifilament.

— The rope fibres shall be protected against deterioration due to sunlight (UV). See ISO 9554

EXAMPLE

Designation of an 8-strand braided rope (type L) with a linear density of 1 630 ktex, corresponding to the reference number 60 and made of polypropylene monofilament (PP2):

Fibre rope ISO 1346 – L – 60 – PP2 protected (UV)

5 General requirements

5.1 Polypropylene ropes shall be made in one of the following constructions:

— type A: 3-strand hawser-laid rope (see Figure 1);

— type B: 4-strand shroud-laid rope (see Figure 2);

— type L: 8-strand braided rope (see Figure 3);

— type T: 12-strand braided rope (see Figure 4).

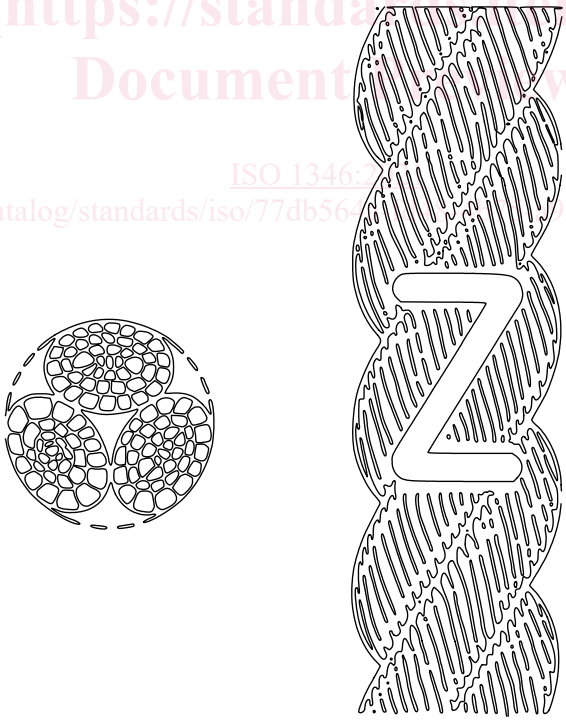

Figure 1 — Shape of a 3-strand hawser-laid rope (type A)