



BSI Standards Publication

Stainless steel wire ropes

National foreword

This British Standard is the UK implementation of [ISO 3444:2023](#).

The UK participation in its preparation was entrusted to Technical Committee MHE/1, Chains and fittings.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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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).

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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 105, *Steel wire ropes*.

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.

Stainless steel wire ropes

1 Scope

This document specifies requirements for manufacture, classification, test methods, packaging, marking and issuing of a certificate for stainless-steel wire ropes.

It is applicable to stainless-steel wire ropes (hereafter referred to as ropes) for instruments, mechanical transmission, cable, sling, shock absorber vibration, yacht, architecture and structure.

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 2020-2](#), *Aerospace — Preformed flexible steel wire rope for aircraft controls — Part 2: Technical specification*

[ISO 3108](#), *Steel wire ropes — Test method — Determination of measured breaking force*

[ISO 7802](#), *Metallic materials — Wire — Wrapping test*

[ISO 15510](#), *Stainless steels — Chemical composition*

ISO 17893, *Steel wire ropes — Vocabulary, designation and classification*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 17893 and the following apply.

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

— ISO Online browsing platform: available at <https://www.iso.org/obp>

— IEC Electropedia: available at <https://www.electropedia.org/>

3.1

stainless steel

steel with at least 10,5 % (mass fraction) Cr and maximum 1,2 % (mass fraction) C

[SOURCE: ISO 15510:2014, 3.1, modified — Note 1 to entry removed.]

3.2

surface status

3.2.1

cleanliness

freedom from visible residue such as lubricating grease, powder and oil

3.2.2

lubricated

coated with grease, rust-proof oil or fatigue oil

3.3 lot

series of ropes manufactured under basically the same time period and consistent conditions, and which have the same construction and diameter

4 Ordering information

The contract in accordance with this document shall at least include the following main contents:

- a) number of this document ([ISO 3444](#));
- b) product name, if relevant;
- c) construction (designation);
- d) nominal rope diameter;
- e) minimum breaking force;
- f) type of core, if relevant;
- g) lay type and direction;
- h) delivery surface status (cleanliness, lubricated, or other requirements);
- i) quantity (length, mass);
- j) steel name;
- k) other specific requirements including detection methods, physical and chemical properties.

5 Requirements

5.1 Materials

5.1.1 Stainless steel

Stainless steel shall conform to [ISO 15510](#). Steel names can be agreed by the purchaser and the manufacturer.

5.1.2 Wire

5.1.2.1 Tolerance on diameter

The tolerance on the nominal wire diameter shall be in accordance with the values given in [Table 1](#).