BS ISO 2232:2022

BSI Standards Publication

Round non-alloy steel wires for general purpose wire ropes, large diameter wire ropes and mine hoisting wire ropes — Specifications

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National foreword

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The UK participation in its preparation was entrusted to Technical Committee MHE/2, Wire ropes.

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

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Published by BSI Standards Limited 2022

ISBN 978 0 539 18286 6

ICS 77.140.65

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 October 2022.

Amendments/corrigenda issued since publication

Date	Text affected

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INTERNATIONAL STANDARD

ISO 2232

Third edition
2022-10

Round non-alloy steel wires for general purpose wire ropes, large diameter wire ropes and mine hoisting wire ropes — Specifications

Fils ronds en acier non allié pour câbles à usage général, câbles de grand diamètre et câbles d'extraction minière — Spécifications

Reference number
ISO 2232:2022(E)

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Published in Switzerland

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Contents

Page

Foreword ... **iv**
Introduction ... **v**
1 Scope ... **1**
2 Normative references ... **1**
3 Terms and definitions ... **2**
4 Wire characteristics ... **3**
4.1 General conditions of manufacture ... 3
4.2 Diameter ... 3
4.2.1 Nominal diameter *d* ... 3
4.2.2 Actual diameter ... 3
4.3 Ovality of the wire ... 3
4.4 Type ... 4
5 Tensile grades ... **4**
5.1 General ... 4
5.2 Reverse bend strength ... 5
5.3 Torsional strength ... 8
5.4 Zinc or Zn/Al alloy coating ... 10
6 Sampling ... **10**
7 Tests ... **11**
7.1 Measurement of actual diameter ... 11
7.2 Tensile test ... 11
7.3 Reverse bend test ... 11
7.4 Torsion test ... 11
7.5 Inspection of zinc or Zn/Al alloy coating ... 11
8 Certificate ... **12**
8.1 General ... 12
8.2 Certificate of conformity ... 12
8.3 Full works certificate ... 12
8.4 Certificate of acceptance ... 12
9 Marking ... **12**
10 Information to be supplied by the purchaser ... **12**
Annex A (normative) **Determination of mass of zinc or Zn/Al alloy deposited per unit of surface area** ... **13**
Annex B (normative) **Test for adhesion of coating** ... **16**
Annex C (informative) **Zinc-aluminium alloy composition and coating performance** ... **17**
Bibliography ... **19**

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Full document details: BS ISO 2232:2022

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).

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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*.

This third edition cancels and replaces the second edition (ISO 2232:1990), which has been technically revised.

The main changes are as follows:

— addition of tensile grades 2 260 N/mm^2 and 2 360 N/mm^2;

— inclusion of wire for mine hoisting ropes previously covered by ISO 6984.

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Introduction

This document was developed in response to a worldwide demand for a specification giving minimum requirements for round non-alloy steel wires for general purpose, large diameter and mine hoisting wire ropes.

As in previous editions, this edition of ISO 2232 specifies metric sizes and grades of wire for the more common diameter and grades of wire.

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Round non-alloy steel wires for general purpose wire ropes, large diameter wire ropes and mine hoisting wire ropes — Specifications

1 Scope

This document specifies round non-alloy steel wires used in the manufacture of general purpose and large diameter ropes to according to ISO 2408:2017 and mine hoisting wire ropes according to ISO 3154:1988.

It specifies:

— the dimensional tolerances;

— the mechanical characteristics;

— the required conditions for any coatings;

— the conditions of sampling, control and terms of acceptance.

It applies to round, bright, zinc (Zn) or zinc/aluminium (Zn/Al) alloy coated wires of quality A or quality B and of nominal diameters from 0,2 mm to 7,0 mm.

It does not apply to steel wire taken from manufactured ropes.

It does not apply to wire for steel wire ropes for special applications, such as:

— ropes for aircraft controls;

— ropes for aerial ropeways;

— ropes for lifts;

— ropes for prestressed concrete;

— ropes for conveyor belts.

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 1460, *Metallic coatings — Hot dip galvanized coatings on ferrous materials — Gravimetric determination of the mass per unit area*

ISO 6892-1, *Metallic materials — Tensile testing — Part 1: Method of test at room temperature*

ISO 7800, *Metallic materials — Wire — Simple torsion test*

ISO 7801, *Metallic materials — Wire — Reverse bend test*

ISO 7802, *Metallic materials — Wire — Wrapping test*

ISO 16120-1, *Non-alloy steel wire rod for conversion to wire — Part 1: General requirements*

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