

# INTERNATIONAL STANDARD

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МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

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## **Steel wire ropes for general purposes — Terms of acceptance**

*Câbles en acier d'usages courants — Conditions de réception*

Reference number  
ISO 3178:1988 (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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 3178 was prepared by Technical Committee ISO/TC 105, *Steel wire ropes*.

This second edition cancels and replaces the first edition (ISO 3178 : 1974), of which it constitutes a minor revision. Annex B, works certificate, has been replaced by a certificate of conformance.

Annexes A, B, C and D are for information only.

# Steel wire ropes for general purposes – Terms of acceptance

## 1 Scope

This International Standard specifies the terms of acceptance for steel wire ropes for general purposes as specified in ISO 2408.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2232 : 1973, *Drawn wire for general purpose non-alloy steel wire ropes – Specifications.*

ISO 2408 : 1985, *Steel wire ropes for general purposes – Characteristics.*

ISO 3108 : 1974, *Steel wire ropes for general purposes – Determination of actual breaking load.*

## 3 General

The number of test pieces to be taken from each batch and the types of test to be carried out should be agreed between the interested parties.

If inspection by sampling is agreeable to the two parties, it may be based on that given in annex A.

If no agreement can be reached, the batch size shall be that number of coils (reels) presented for acceptance.

## 4 Tests on rope

### 4.1 Diameter and tolerances

4.1.1 The nominal diameter of the rope shall be one of those specified in clause 6 of ISO 2408.

4.1.2 The actual diameter of the rope shall be within the tolerances specified in ISO 2408.

4.1.3 The actual diameter shall be measured with a suitable caliper fitted with jaws broad enough to cover not less than two adjacent strands.

The measurements shall be taken on a straight portion of the rope without tension, at two points spaced at least 1 m apart, and at each point the two diameters at right angles shall be measured.

The average of these four measurements shall be within the tolerances specified by reference to the nominal diameter.

4.1.4 The measurements for ovality (out-of-roundness) shall be taken in accordance with 4.1.3. The maximum variation between any of the four measurements shall not exceed the values given in table 1.

Table 1 – Permissible ovality

Nominal diameter <i>d</i> mm	Permissible ovality on nominal diameter, %	
	Ropes with strands exclusively of wire	Ropes with fibre strand cores
2 and 3	7	—
4 and 5	6	8
6 and 7	5	7
8 and over	4	6

4.1.5 In case of dispute, the diameter may be measured under a force of approximately 5 % of the minimum breaking load of the rope.

### 4.2 Breaking force

The actual breaking force of the rope shall be not less than the minimum breaking force specified in ISO 2408 when measured in accordance with the method specified in ISO 3108.

## 5 Tests on wires from the rope

When specified by the purchaser on the enquiry and order, tests of wires from each production length shall be carried out in respect of diameter, tensile strength, torsions, bends and, when necessary, galvanizing.

### 5.1 Material

The material shall comply with ISO 2232 subject to the acceptance levels given in 5.4