International Standard 4101

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Drawn steel wire for elevator ropes — Specifications

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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 developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been authorized 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.

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.

International Standard ISO 4101 was developed by Technical Committee ISO/TC 105, *Steel wire ropes*, and was circulated to the member bodies in October 1982.

It has been approved by the member bodies of the following countries :

Austria	India	Sweden
Canada	Israel	Switzerland
China	Italy	United Kingdom
Czechoslovakia	Korea, Rep. of	Thailand
Egypt, Arab Rep. of	Netherlands	USSR
France	Poland	
Germany, F. R.	Spain	

The member bodies of the following countries expressed disapproval of the document on technical grounds :

Australia
Belgium
South Africa, Rep. of

Printed in Switzerland

Drawn steel wire for elevator ropes — Specifications

1 Scope

This International Standard gives the specifications for steel wire to be used for elevator ropes only.

It lays down :

— the dimensional tolerances;

— the mechanical characteristics.

2 Field of application

This International Standard applies to new steel wire of between 0,25 and 1,8 mm diameter, used solely for manufacture of elevator ropes. It does not apply to steel wires taken from a rope.

3 References

ISO 89, *Steel — Tensile testing of wire.*

ISO 136, *Steel — Simple torsion testing of wire.*

ISO 144, *Steel — Reverse bend testing of wire.*

ISO 2701, *Drawn wire for general purpose non-alloy steel wire ropes — Terms of acceptance.*

4 Diameters and ovality

4.1 Nominal diameter of the wire, d

The nominal diameter of the wire, d, is the diameter in millimetres specified by the ropemaker on the order. It shall be the basis on which the values of all characteristics are determined for acceptance of the wire.

4.2 Actual diameter of the wire

The actual diameter of the wire shall be the diameter given by the arithmetic mean of two measurements, one being perpendicular to the other in the same plane. The arithmetic mean shall be within the tolerance limits specified in table 1.

4.3 Ovality of the wire

The two measurements, taken as specified in 4.2, shall not differ by more than half the total tolerance given in table 1.