

INTERNATIONAL STANDARD



89

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Steel — Tensile testing of wire

Acier — Essai de traction des fils

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (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 set up 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 89 was drawn up by Technical Committee ISO/TC 17, *Steel*, and circulated to the Member Bodies in March 1972.

It has been approved by the Member Bodies of the following countries :

Australia	France	South Africa, Rep. of
Austria	Germany	Spain
Belgium	Hungary	Sweden
Canada	India	Switzerland
Chile	Ireland	Thailand
Czechoslovakia	Italy	Turkey
Denmark	Netherlands	United Kingdom
Egypt, Arab Rep. of	New Zealand	U.S.A.
Finland	Romania	U.S.S.R.

The Member Body of the following country expressed disapproval of the document on technical grounds :

Norway

This International Standard cancels and replaces ISO Recommendation R 89-1959.

Steel – Tensile testing of wire

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies requirements for the tensile testing of steel products which have usually been cold-worked and are of constant cross-section, either round, square, rectangular, or special. The dimensions of the cross-section are always very small compared with the usual lengths produced, and for wire of rectangular or special cross-section the ratio of width to thickness is generally less than 4. The diameter, or other characteristic dimension, is usually not greater than 10 mm.

For the tensile testing of other steel products, ISO 82, ISO 86 and ISO 375 are applicable.

2 REFERENCES

ISO 82, *Steel – Tensile testing.*

ISO 86, *Steel – Tensile testing of sheet and strip less than 3 mm and not less than 0,5 mm thick.*

ISO 375, *Steel – Tensile testing of tubes.*

ISO/R 147, *Load calibration of testing machines for tensile testing of steel.*

ISO/R 205, *Determination of proof stress and proving test for steel at elevated temperatures.*

ISO/R 783, *Mechanical testing of steel at elevated temperatures – Determination of lower yield stress and proof stress and proving test.*

ISO 2573, *Determination of K-values of a tensile testing system.*¹⁾

3 PRINCIPLE

The test consists in straining a test piece by tensile stress, generally to fracture, with a view to determining one or more of the mechanical properties enumerated hereafter.

The test is carried out at ambient temperature unless otherwise specified. For tests at elevated temperatures, ISO/R 205 and ISO/R 783 are applicable.

1) At present at the stage of draft.