

INTERNATIONAL STANDARD

ISO
9723

First edition
1992-12-01

Nickel and nickel alloy bars

Barres en nickel et alliages de nickel



Reference number
ISO 9723:1992(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 voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 9723 was prepared by Technical Committee ISO/TC 155, *Nickel and nickel alloys*, Sub-Committee SC 2, *Wrought and cast nickel and nickel alloys*.

Annex A forms an integral part of this International Standard.

Nickel and nickel alloy bars

1 Scope

This International Standard specifies requirements for nickel and nickel alloy bars in the finished condition and for further working in the following size ranges:

- cold-worked bars up to and including 65 mm diameter or width across flats
- hot-worked bars up to and including 315 mm diameter or width across flats.

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 indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO/R 204:1961, *Non-interrupted creep testing of steel at elevated temperatures*.

ISO/R 206:1961, *Creep stress rupture testing of steel at elevated temperatures*.

ISO 6372-1:1989, *Nickel and nickel alloys — Terms and definitions — Part 1: Materials*.

ISO 6372-3:1989, *Nickel and nickel alloys — Terms and definitions — Part 3: Wrought products and castings*.

ISO 6892:1984, *Metallic materials — Tensile testing*.

ISO 7003:1990, *Unified format for the designation of metals*.

ISO/TR 9721:1992, *Nickel and nickel alloys — Rules for material description based on chemical symbols*.

ISO 9722:1992, *Nickel and nickel alloys — Composition and forms of wrought products*.

ASTM E 112:1988, *Standard methods for determining average grain size*.

3 Definitions

For the purposes of this International Standard, the following definitions and those for nickel and nickel alloys in ISO 6372-1 and for bars in ISO 6372-3 apply.

3.1 heat: The product of a furnace melt or a number of melts that are mixed prior to casting.

3.2 lot: Bars of the same cross-sectional dimensions, from the same heat, heat treated together or sequentially heat treated in a continuous furnace, but in no case for longer than 16 h of production. For bars not identified by heat, the lot shall be either one piece of the forging or 500 kg, whichever is larger.

4 Alloy identification

For the purposes of this International Standard, the principles for alloy identification in ISO/TR 7003 and ISO/TR 9721 apply.

5 Ordering information

Orders for bars according to this International Standard shall include the following information.

5.1 The number of this International Standard.

5.2 Quantity (mass or number of bars).

5.3 Alloy identification (see table 1).

NOTE 1 For alloy identification, either the number or the description may be used.

5.4 Alloy temper, for finished bars only (see table 2).