INTERNATIONAL STANDARD

ISO 9725

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Nickel and nickel alloy forgings

Pièces forgées en nickel et alliages de nickel

Reference number
ISO 9725:1992(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 9725 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.

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Nickel and nickel alloy forgings

1 Scope

This International Standard specifies requirements for nickel and nickel alloy forgings for general purposes.

NOTE 1 Bars used for the manufacture of forgings should conform to the requirements for bars to be further worked by the purchaser, specified in subclause 5.2 of ISO 9723:1992.

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/TR 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.*

ISO 9723:1992, *Nickel and nickel alloy bars.*

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 forgings in 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: Forgings 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 forgings 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.