INTERNATIONAL STANDARD 1640

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

Wrought copper alloys — Forgings — Mechanical properties

Alliages de cuivre corroyés — Pièces forgées — Caractéristiques mécaniques

First edition — 1974-11-01

UDC 669.3-41 : 539.3/.6

Ref. No. ISO 1640-1974 (E)

Descriptors : copper alloys, wrought products, forgings, mechanical properties.

Price based on 2 pages

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 1640 was drawn up by Technical Committee ISO/TC 26, *Copper and copper alloys*, and circulated to the Member Bodies in December 1971.

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

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

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

Germany

Printed in Switzerland

Wrought copper alloys — Forgings — Mechanical properties

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the mechanical properties of forgings in wrought copper and copper alloys the chemical compositions of which are listed in the appropriate International Standards (see 2.1).

2 REFERENCES

2.1 Chemical composition and forms of semi-manufactured products

ISO 426, *Wrought copper-zinc alloys — Chemical composition and forms of wrought products —*

Part I : Non-leaded, special and high tensile alloys.

Part II : Leaded alloys.

ISO 428, *Wrought copper-aluminium alloys — Chemical composition and forms of wrought products.*

ISO 430, *Wrought copper-nickel-zinc alloys — Chemical composition and forms of wrought products.*

ISO/R 1336, *Wrought alloyed coppers.*

2.2 Designations

ISO/R 1190, *Copper and copper alloys — Code of designation —*

Part I : Designation of materials.

Part II : Designation of tempers.

2.3 Test methods

ISO/R 399, *Vickers hardness test for copper and copper alloys (Test loads from 2.5 to 50 kgf).*

ISO/R 400, *Tensile testing of copper and copper alloys.*

ISO ..., *Copper, copper alloys and alloyed coppers — Selection of specimens and test pieces.* [1)]

3 ESSENTIAL PROPERTIES REQUIREMENTS

Table 1 embodies the principle that two properties are generally sufficient to define the condition of the material. The properties to be specified vary according to the temper and application of the material as set out in the table.

4 MECHANICAL PROPERTIES

Mechanical properties are given in table 2.

5 TEST METHODS

5.1 Tensile test

According to ISO/R 400.

5.2 Vickers hardness test

According to ISO/R 399 for test loads within the range from 2.5 up to 50 kgf.

5.3 Selection of test pieces

According to ISO ...

1) In preparation.