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IRISH STANDARD

I.S. EN 12420:1999

ICS 77.150.30

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COPPER AND COPPER ALLOYS - FORGINGS

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EUROPEAN STANDARD
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EN 12420

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Descriptors: copper, copper alloys, forgings, die forgings, definitions, orders : sales documents, specifications, chemical composition, mechanical properties, tensile strength, electrical properties, dimensional tolerances, form tolerances, sampling, tests, conformity tests, marking

English version

Copper and copper alloys - Forgings

Cuivre et alliages de cuivre - Pièces forgées

Kupfer und Kupferlegierungen - Schmiedestücke

This European Standard was approved by CEN on 13 December 1998.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 133 "Copper and copper alloys", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 1999, and conflicting national standards shall be withdrawn at the latest by July 1999.

Within its programme of work, Technical Committee CEN/TC 133 requested CEN/TC 133/WG 6 "Forgings" to prepare the following standard:

EN 12420 Copper and copper alloys - Forgings

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this standard.

Forging stock is specified in the following standard:

EN 12165 Copper and copper alloys - Wrought and unwrought forging stock

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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1 Scope

This European Standard specifies the composition, the property requirements and tolerances on dimensions and form for copper and copper alloy die and hand forgings.

The sampling procedures, the methods of test for verification of conformity to the requirements of this standard, and the delivery conditions are also specified.

2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

EN 1655
Copper and copper alloys – Declarations of conformity

EN 1976
Copper and copper alloys – Cast unwrought copper products

EN 10002-1
Metallic materials – Tensile testing – Part 1: Method of test (at ambient temperature)

EN 10003-1
Metallic materials – Brinell hardness test – Part 1: Test method

EN 10204
Metallic products – Types of inspection documents

EN ISO 196
Wrought copper and copper alloys – Detection of residual stress – Mercury(I) nitrate test (ISO 196 : 1978)

EN ISO 6509 : 1995
Corrosion of metals and alloys – Determination of dezincification resistance of brass (ISO 6509 : 1981)

ISO 1101
Technical drawings – Geometrical tolerancing – Tolerancing of form, orientation, location and run-out – Generalities, definitions, symbols, indications on drawings

ISO 1811-2
Copper and copper alloys – Selection and preparation of samples for chemical analysis – Part 2: Sampling of wrought products and castings

ISO 6507-1
Metallic materials – Hardness test – Vickers test – Part 1: HV 5 to HV 100

ISO 6957
Copper alloys – Ammonia test for stress corrosion resistance

NOTE: Informative references to documents used in the preparation of this standard, and cited at the appropriate places in the text, are listed in a bibliography, see annex A.

3 Definitions

For the purposes of this standard, the following definitions apply:

3.1 forgings

Wrought products, hot formed by hammering or pressing.

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