

SVENSK STANDARD

SS-EN 1503-4:2016



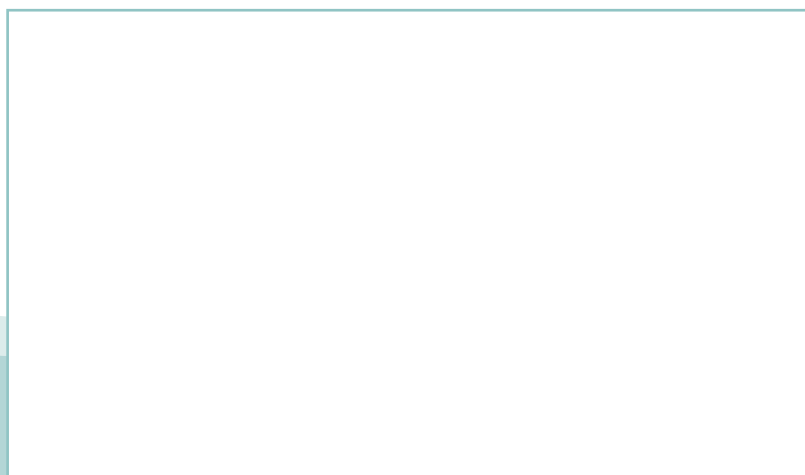
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Rörledningsarmatur – Ventiler – Material för ventilhus, överdelar och lock –

Del 4: Kopparlegeringar specificerade i Europastandarder

Valves – Materials for bodies, bonnets and covers –

Part 4: Copper alloys specified in European Standards



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Europastandarden EN 1503-4:2016 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN 1503-4:2016.

Denna standard ersätter SS-EN 1503-4, utgåva 1.

The European Standard EN 1503-4:2016 has the status of a Swedish Standard. This document contains the official English version of EN 1503-4:2016.

This standard supersedes the Swedish Standard SS-EN 1503-4, edition 1.

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Information about the content of the standard is available from the Swedish Standards Institute (SIS), telephone +46 8 555 520 00. Standards may be ordered from SIS Förlag AB, who can also provide general information about Swedish and foreign standards.

Denna standard är framtagen av kommittén för Stålrör, rördelar och rörlänsar, SIS/TK 118.

Har du synpunkter på innehållet i den här standarden, vill du delta i ett kommande revideringsarbete eller vara med och ta fram andra standarder inom området? Gå in på www.sis.se - där hittar du mer information.

EUROPEAN STANDARD

EN 1503-4

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2016

ICS 23.060.01; 77.120.30

Supersedes EN 1503-4:2002

English Version

Valves - Materials for bodies, bonnets and covers - Part 4: Copper alloys specified in European Standards

Appareils de robinetterie - Matériaux pour les corps, chapeaux et couvercles - Partie 4: Alliages de cuivre spécifiés dans les Normes Européennes

Armaturen - Werkstoffe für Gehäuse, Oberteile und Deckel - Teil 4: Kupferlegierungen, die in Europäischen Normen festgelegt sind

This European Standard was approved by CEN on 15 December 2015.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

This document (EN 1503-4:2016) has been prepared by Technical Committee CEN/TC 69 “Industrial valves”, the secretariat of which is held by AFNOR.

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 August 2016, and conflicting national standards shall be withdrawn at the latest by August 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1503-4:2002.

The main changes compared to the previous edition are:

- a) Clause 2 “Normative references” has been updated;
- b) Table 1 has been deleted and therefore a reference to EN 12516-4:2014, Table 8 has been added;
- c) material “CuSn5Zn5Pb2-C” has been added to Table 1;
- d) the Bibliography has been deleted.

EN 1503, *Valves — Materials for bodies, bonnets and covers* consists of four parts:

- *Part 1: Steels specified in European Standards*
- *Part 2: Steels other than those specified in European Standards*
- *Part 3: Cast Irons specified in European Standards*
- *Part 4: Copper alloys specified in European Standards*

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard lists copper alloys for pressure containing valve bodies, bonnets and covers which are specified in European Standards.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1982, *Copper and copper alloys — Ingots and castings*

EN 12163, *Copper and copper alloys — Rod for general purposes*

EN 12164, *Copper and copper alloys — Rod for free machining purposes*

EN 12167, *Copper and copper alloys — Profiles and bars for general purposes*

EN 12168, *Copper and copper alloys — Hollow rod for free machining purposes*

EN 12420, *Copper and copper alloys — Forgings*

EN 12449, *Copper and copper alloys — Seamless, round tubes for general purposes*

EN 12516-4:2014, *Industrial valves — Shell design strength — Part 4: Calculation method for valve shells manufactured in metallic materials other than steel*

3 Materials

3.1 General

The materials shall be as given in 3.2 and 3.3.

The selection of materials should take account of the intended use and all reasonably foreseeable operation conditions. Selecting materials from Group 1 will provide some assurance of their suitability for valve bodies, bonnets and covers, whereas selecting from Group 2 will not provide the same assurance.

Due consideration should be given to all reasonably foreseeable degradation mechanism (e.g. corrosion, creep, fatigue) that may occur in some applications.

3.2 Group 1 materials

EN 12516-4:2014, Table 8, lists copper alloys specified in European material standards which have been in regular use for valve bodies, bonnets and covers.

3.3 Group 2 materials

Table 1 lists copper alloys specified in European material standards that may be used for valve bodies, bonnets and covers.