



NSAI
Standards

Irish Standard
I.S. EN 1503-4:2016

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

I.S. EN 1503-4:2016

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

EN 1503-4:2016

Published:

2016-02-03

*This document was published
under the authority of the NSAI
and comes into effect on:*

2016-02-21

ICS number:

23.060.01

77.120.30

NOTE: If blank see CEN/CENELEC cover page

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN 1503-4:2016 is the adopted Irish version of the European Document EN 1503-4:2016, Valves - Materials for bodies, bonnets and covers - Part 4: Copper alloys specified in European Standards

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This page is intentionally left blank

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

Contents	Page
European foreword.....	3
1 Scope.....	4
2 Normative references.....	4
3 Materials.....	4
3.1 General.....	4
3.2 Group 1 materials	4
3.3 Group 2 materials	4

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.

EN 1503-4:2016 (E)**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.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-