

საქართველოს სტანდარტი

სსკ: 23.040.15

სპილენძი და სპილენძის შენადნობები - უნაკერო, მრგვალი მილები საჰაერო
კონდიციონერებისა და გაცივებისათვის - ნაწილი 1: მილები მილსადენების
სისტემისთვის

საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.

სსტ ენ 12735-1:2020/2021

საინფორმაციო მონაცემები

1 მიღებულია და დაშვებულია სამოქმედოდ: სსიპ-საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს გენერალური დირექტორის 24/05/2021 წლის № 31 განკარგულებით

2 მიღებულია „თავფურცლის“ თარგმნის მეთოდით: სტანდარტიზაციის ევროპული კომიტეტის სტანდარტი ენ 12735-1:2020 „ სპილენძი და სპილენძის შენადნობები - უნაკერო, მრგვალი მილები საჰაერო კონდიციონერებისა და გაცივებისათვის - ნაწილი 1: მილები მილსადენების სისტემისთვის”

3 პირველად

4 რეგისტრირებულია: სსიპ-საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 24/05/2021 წლის №268-1.3-020115

წინამდებარე სტანდარტის ნებისმიერი ფორმით გავრცელება სააგენტოს ნებართვის გარეშე აკრძალულია

English Version

Copper and copper alloys - Seamless, round tubes for air conditioning and refrigeration - Part 1: Tubes for piping systems

Cuivre et alliages de cuivre - Tubes ronds sans soudure pour l'air conditionné et la réfrigération - Partie 1 : Tubes pour canalisations

Kupfer und Kupferlegierungen - Nahtlose Rundrohre für die Kälte- und Klimatechnik - Teil 1: Rohre für Leitungssysteme

This European Standard was approved by CEN on 13 January 2020.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, 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: Rue de la Science 23, B-1040 Brussels

Contents

Page

European foreword..... 4

Introduction 6

1 Scope 7

2 Normative references 7

3 Terms and definitions 8

4 Designations..... 9

4.1 Material..... 9

4.2 Material condition 9

4.3 Product..... 9

5 Ordering information 10

6 Requirements 11

6.1 Composition 11

6.2 Mechanical properties..... 12

6.3 Dimensions and tolerances 13

6.4 Drift expanding 16

6.5 Freedom from defects..... 16

6.6 Surface quality..... 16

7 Sampling..... 16

8 Test methods 17

8.1 Analysis..... 17

8.2 Tensile test 17

8.3 Hardness test 17

8.4 Drift expanding test..... 17

8.5 Carbon content test 17

8.6 Freedom from defects test..... 17

8.7 Retests..... 17

9 Declaration of conformity and inspection documentation..... 18

9.1 Declaration of conformity 18

9.2 Inspection documentation..... 18

10 Packaging, marking and form of delivery 18

10.1 Packaging and marking 18

10.2 Marking of tubes..... 18

10.3 Form of delivery 19

Annex A (normative) Marking durability test 20

A.1 Abrasion test..... 20

A.2 Climatic test..... 20

Annex B (normative) Freedom from defects test 21

B.1 Eddy current test..... 21

საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.

B.2 Hydrostatic test 21

B.3 Pneumatic test 22

Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2014/68/EU (Pressure equipment Directive) aimed to be covered 23

Bibliography 24

საინფორმაციო ნაწილი. სრული ტექსტის საწინააღმდეგო შეიძინეთ სტანდარტი.

European foreword

This document (EN 12735-1:2020) 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 September 2020, and conflicting national standards shall be withdrawn at the latest by September 2020.

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

This document supersedes EN 12735-1:2016.

This document has been prepared under a standardization request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of Directive 2014/68/EU, Pressure Equipment Directive (PED).

For relationship with EU Directive 2014/68/EU, see informative Annex ZA, which is an integral part of this document.

In comparison with EN 12735-1:2016, the following changes were made:

- a) Modification of the maximum outside diameter for Cu-DHP, R220, in Table 3;
- b) Removal of Note 3 from Table 3;
- c) Requirements added in 10.2 concerning marking of tube coverings;
- d) Amendment in 6.5;
- e) Deletion of last sentence in 8.6;
- f) Amendments in Annex ZA;
- g) Update of Normative References;
- h) Several editorial amendments.

EN 12735, *Copper and copper alloys — Seamless, round tubes for air conditioning and refrigeration* consists of two parts:

- *Part 1: Tubes for piping systems;*
- *Part 2: Tubes for equipment.*

This is one of a series of European Standards for copper and copper alloy tubes. Other products are specified as follows:

- EN 1057, *Copper and copper alloys — Seamless, round copper tubes for water and gas in sanitary and heating applications;*
- EN 12449, *Copper and copper alloys — Seamless, round tubes for general purposes;*

- EN 12450, *Copper and copper alloys — Seamless, round copper capillary tubes;*
- EN 12451, *Copper and copper alloys — Seamless, round tubes for heat exchangers;*
- EN 12452, *Copper and copper alloys — Rolled, finned, seamless tubes for heat exchangers;*
- EN 12735-2, *Copper and copper alloys — Seamless, round tubes for air conditioning and refrigeration — Part 2: Tubes for equipment;*
- EN 13348, *Copper and copper alloys — Seamless, round copper tubes for medical gases or vacuum;*
- EN 13349, *Copper and copper alloys — Pre-insulated copper tubes with solid covering;*
- EN 13600, *Copper and copper alloys — Seamless copper tubes for electrical purposes.*

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

Introduction

It is recommended that tubes manufactured in accordance with this document are certified as conforming to the requirements of this document based on continuing surveillance which should be coupled with an assessment of a supplier's certified quality management system.

It is advised to take appropriate precautions if applying insulating material because it could be detrimental to the tube.

საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.