

საქართველოს სტანდარტი

უნაკერო ფოლადის მილები დაწნევის პირობებში გამოსაყენებლად-მიწოდების
ტექნიკური პირობები-ნაწილი 1: არალეგირებული ფოლადის მილები
დადგენილი თვისებებით ოთახის ტემპერატურაზე

საქართველოს სტანდარტებისა და მეტროლოგიის
ეროვნული სააგენტო
თბილისი

სსტ ენ 10216-1:2013/2015

საინფორმაციო მონაცემები

1 დამტკიცებულია და შემოღებულია სამოქმედოდ საქართველოს სტანდარტებისა
და მეტროლოგიის ეროვნული სააგენტოს 2015 წლის 4 მარტის
№ 14 განკარგულებით

2 მიღებულია თავფურცლის თარგმნის მეთოდით სტანდარტიზაციის ევროპული
კომიტეტის სტანდარტი ენ 10216-1:2013 „უნაკერო ფოლადის მიღები დაწნევის
პირობებში გამოსაყენებლად-მიწოდების ტექნიკური პირობები-ნაწილი 1:
არალეგირებული ფოლადის მიღები დადგენილი თვისებებით ოთახის ტემპერატურაზე”

3 პირველად

4 რეგისტრირებულია საქართველოს სტანდარტებისა და მეტროლოგიის
ეროვნული სააგენტოს რეგისტრში: 2015 წლის 4 მარტი
№ 268-1.3-6677

აკრძალულია ამ სტანდარტის გადაცემა მესამე პირებისათვის ან/და მისი სხვა ფორმით
გავრცელება

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 10216-1

December 2013

ICS 23.040.10; 77.140.75

Supersedes EN 10216-1:2002

English Version

Seamless steel tubes for pressure purposes - Technical delivery conditions - Part 1: Non-alloy steel tubes with specified room temperature properties

Tubes sans soudure en acier pour service sous pression -
Conditions techniques de livraison - Partie 1 : Tubes en
acier non allié avec caractéristiques spécifiées à
température ambiante

Nahrlöse Stahlrohre für Druckbeanspruchungen -
Technische Lieferbedingungen - Teil 1: Rohre aus
unlegierten Stählen mit festgelegten Eigenschaften bei
Raumtemperatur

This European Standard was approved by CEN on 17 August 2013.

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
Foreword	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Symbols	6
5 Classification and designation	6
5.1 Classification	6
5.2 Designation	6
6 Information to be supplied by the purchaser	7
6.1 Mandatory information	7
6.2 Options	7
6.3 Example of an order	8
7 Manufacturing process	8
7.1 Steelmaking process	8
7.2 Tube manufacture and delivery conditions	8
8 Requirements	9
8.1 General	9
8.2 Chemical composition	9
8.2.1 Cast analysis	9
8.2.2 Product analysis	11
8.3 Mechanical properties	12
8.3.1 Mechanical properties for quality TR2	12
8.3.2 Mechanical properties for quality TR1	12
8.4 Appearance and internal soundness	13
8.4.1 Appearance	13
8.4.2 Internal soundness	13
8.5 Straightness	14
8.6 Preparation of ends	14
8.7 Dimensions, masses and tolerances	14
8.7.1 Diameter and wall thickness	14
8.7.2 Mass	14
8.7.3 Lengths	14
8.7.4 Tolerances	17
9 Inspection	17
9.1 Types of inspection	17
9.2 Inspection documents	18
9.2.1 Types of inspection documents	18
9.2.2 Content of inspection documents	18
9.3 Summary of inspection and verification testing	19
10 Sampling	20
10.1 Frequency of tests	20
10.1.1 Test unit	20
10.1.2 Number of sample tubes per test unit	20
10.2 Preparation of samples and test pieces	20
10.2.1 Selection and preparation of samples for product analysis	20
10.2.2 Location, orientation and preparation of samples and test pieces for mechanical tests	20
11 Verification test methods	21

11.1	Chemical analysis	21
11.2	Tensile test.....	22
11.3	Impact test.....	22
11.4	Leak tightness test	23
11.4.1	Hydrostatic test	23
11.4.2	Electromagnetic test	23
11.5	Dimensional inspection	23
11.6	Visual examination	23
11.7	Non-Destructive Testing	23
11.8	Retest, sorting and reprocessing	24
12	Marking	24
12.1	Marking to be applied.....	24
12.2	Additional marking	24
13	Protection.....	24
Annex A	(informative) Technical changes from the previous edition	25
A.1	Introduction.....	25
A.2	Technical changes	25
Annex ZA	(informative) Relationship between this European Standard and the Essential Requirements of EU Directive 97/23/EC.....	26
Bibliography	27

Foreword

This document (EN 10216-1:2013) has been prepared by Technical Committee ECISS/TC 110 "Steel tubes and fittings for steel tubes", the secretariat of which is held by UNI.

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 June 2014, and conflicting national standards shall be withdrawn at the latest by June 2014.

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 10216-1:2002.

For the list of the most significant technical changes that have been made in this new edition, see Annex A.

This document 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 document.

This European Standard consists of the following parts, under the general title "*Seamless steel tubes for pressure purposes — Technical delivery conditions*":

- *Part 1: Non-alloy steel tubes with specified room temperature properties;*
- *Part 2: Non-alloy and alloy steels tubes with specified elevated temperature properties;*
- *Part 3: Alloy fine grain steel tubes;*
- *Part 4: Non-alloy and alloy steel tubes with specified low temperature properties;*
- *Part 5: Stainless steel tubes.*

Another European Standard series covering tubes for pressure purposes is:

- EN 10217, *Welded steel tubes for pressure purposes — Technical delivery conditions.*

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.