Plasttorustikusüsteemid. Maa-alused ja pealsed veele ja muudele vedelikule mõeldud survesüsteemid. Torude, liitmike ja nende ühenduskohtade toimivusparameetrid

Plastics piping systems - Buried and above ground systems for water and other fluids under pressure - Performance characteristics for pipes, fittings and their joints



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 15014:2007 sisaldab Euroopa standardi EN 15014:2007 ingliskeelset teksti.

Käesolev dokument on jõustatud 22.11.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 15014:2007 consists of the English text of the European standard EN 15014:2007.

This document is endorsed on 22.11.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

Käsitlusala:

This European Standard specifies performance requirements for plastics pipes, fittings and their joints for buried or above-ground pressure applications for water for general purposes, drainage, sewerage and irrigation, as well as for any other pressure application with other fluids covered by the Construction Products Directive with the exception of drinking water distribution for human consumption. It gives associated test methods for verification and evaluation of conformity with this European Standard. NOTE Compliance of pipes, fittings and their joints with this document does not confer a presumption of fitness of the product for the transport of water intended for human consumption within the meaning of the Directive 89/106/EEC. However, until the operation of the envisaged European Acceptance Scheme for construction products in contact with water intended for human consumption and the revision of this standard, products conforming to this standard could be used for the transport of water intended for human consumption if they conform to the relevant national, regional or local regulatory provisions or recommendations applicable in the place of use.

Scope:

This European Standard specifies performance requirements for plastics pipes, fittings and their joints for buried or above-ground pressure applications for water for general purposes, drainage, sewerage and irrigation, as well as for any other pressure application with other fluids covered by the Construction Products Directive with the exception of drinking water distribution for human consumption. It gives associated test methods for verification and evaluation of conformity with this European Standard. NOTE Compliance of pipes, fittings and their joints with this document does not confer a presumption of fitness of the product for the transport of water intended for human consumption within the meaning of the Directive 89/106/EEC. However, until the operation of the envisaged European Acceptance Scheme for construction products in contact with water intended for human consumption and the revision of this standard, products conforming to this standard could be used for the transport of water intended for human consumption if they conform to the relevant national, regional or local regulatory provisions or recommendations applicable in the place of use.

ICS 23.040.20, 23.040.45

EUROPEAN STANDARD NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 15014

October 2007

ICS 23.040.20: 23.040.45

English Version

Plastics piping systems - Buried and above ground systems for water and other fluids under pressure - Performance characteristics for pipes, fittings and their joints

Systèmes de canalisations en plastique - Systèmes enterrés et aériens pour eau et autres fluides avec pression - Caractéristiques de performance pour tubes, raccords et leurs assemblages

Kunststoff-Rohrleitungssysteme - Erd- und oberirdisch verlegte Druckrohrleitungssysteme für Wasser und andere Flüssigkeiten - Eigenschaften für die Gebrauchstauglichkeit von Rohren, Formstücken und deren Verbindungen

This European Standard was approved by CEN on 23 August 2007.

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 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 Management Centre has the same status as the official versions.

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



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Conten	l ts Paç	је
Forewor	d	. 3
Introduc	tion	. 4
1	Scope	. 5
2	Normative references	. 5
3	Terms, definitions and symbols	
4	Performance requirements	
- 4.1	Reaction to fire for applications inside building	
4.2	External pressure strength	
4.3	Internal pressure strength	
4.4	Dimensional tolerances	
4.5	Tightness (air and liquid)	_
4.6	Durability	
4.7	Dangerous substances	
5	Test methods	. 9
5.1	Reaction to fire for applications inside building	
5.2	Determination of the nominal pressure	
5.3	Internal pressure strength	
5.4	Dimensional tolerances	10
5.5	Tightness	10
5.6	Durability	
6	Evaluation of conformity	
6.1	General	
6.2	Initial type testing	
6.3	Factory production control	12
6.4	One-off products and products produced in very low quantities	15
	(normative) Product standards for buried and above-ground pressure piping systems in materials for water for general purposes, drainage, sewerage, irrigation and other fluids	17
piping s	(normative) Standards for assessment of conformity for buried and above-ground pressure ystems in plastics materials for water for general purposes, drainage, sewerage, irrigation an ids	d
	A (informative) Clauses of this European Standard addressing the provisions of EU	20
ZA.1	Scope and relevant characteristics	20
ZA.2	Procedure for attestation of conformity of plastics pipes and fittings	
ZA.2.1	Systems of attestation of conformity	21
ZA.2.2	EC Certificate and Declaration of conformity	
ZA.3 ZA.3.1	CE marking and labelling CE marking requirements	
ZA.3.1 ZA.3.2	Simplified CE marking with reference to a web site	
	General	26
ZA.3.2.2	Minimum rules for the proper use of a web site for CE marking information	28
Bibliogra	enhv	29

Foreword

This document (EN 15014:2007) has been prepared by Technical Committee CEN/TC 155 "Plastics piping systems and ducting systems", the secretariat of which is held by NEN.

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 April 2008, and conflicting national standards shall be withdrawn at the latest by July 2009.

This document has been prepared under the mandate M/131 "Pipes, tanks and ancillaries not in contact with water intended for human consumption" given to CEN by the European Commission and the European Free Trade Association and support essential requirements of EU Directives.

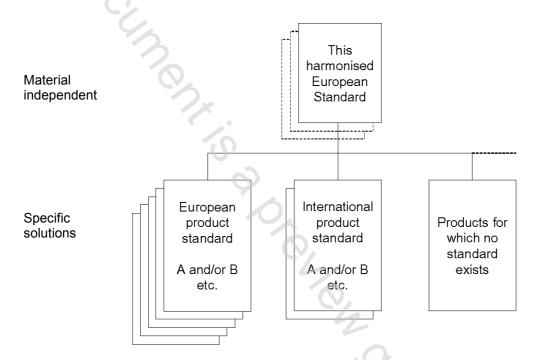
For the relationship with EU Directives, see informative Annex ZA, which is an integral part of this document.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

This European Standard contains only the performance characteristics needed to meet the essential requirements of EU Directive(s). It does not cover all characteristics of the products. These are specified in the standards listed in Annex A or in other appropriate product specifications.

This harmonised European Standard is part of a family of cluster standards addressing plastics piping systems. The relationship is shown below.



For the harmonisation of pressure plastics piping systems (this European Standard) the following applies:

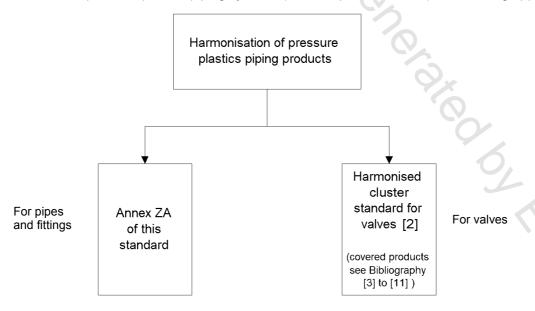


Figure 1

1 Scope

This European Standard specifies performance requirements for plastics pipes, fittings and their joints for buried or above-ground pressure applications for water for general purposes, drainage, sewerage and irrigation, as well as for any other pressure application with other fluids covered by the Construction Products Directive with the exception of drinking water distribution for human consumption. It gives associated test methods for verification and evaluation of conformity with this European Standard.

NOTE Compliance of pipes, fittings and their joints with this document does not confer a presumption of fitness of the product for the transport of water intended for human consumption within the meaning of the Directive 89/106/EEC. However, until the operation of the envisaged European Acceptance Scheme for construction products in contact with water intended for human consumption and the revision of this standard, products conforming to this standard could be used for the transport of water intended for human consumption if they conform to the relevant national, regional or local regulatory provisions or recommendations applicable in the place of use.

2 Normative references

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

EN 681-1, Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 1: Vulcanized rubber

EN 681-2, Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 2: Thermoplastic elastomers

EN 681-4, Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 4: Cast polyurethane sealing elements

EN 713, Plastics piping systems — Mechanical joints between fittings and polyolefin pressure pipes — Test method for leaktightness under internal pressure of assemblies subjected to bending

EN 715, Thermoplastics piping systems — End-load bearing joints between small diameter pressure pipes and fittings — Test method for leaktightness under internal water pressure, including end thrust

EN 911, Plastics piping systems — Elastomeric sealing ring type joints and mechanical joints for thermoplastics pressure piping — Test method for leaktightness under external hydrostatic pressure

EN 1394, Plastics piping systems — Glass-reinforced thermosetting plastics (GRP) pipes — Determination of the apparent initial circumferential tensile strength

EN 1796, Plastics piping systems for water supply with or without pressure — Glass-reinforced thermosetting plastics (GRP) based on unsaturated polyester resin (UP)

EN 13501-1, Fire classification of construction products and building elements — Part 1: Classification using test data from reaction to fire tests

EN 14364, Plastics piping systems for drainage and sewerage with or without pressure — Glass-reinforced thermosetting plastics (GRP) based on unsaturated polyester resin (UP) — Specifications for pipes, fittings and joints

EN 15012:2007, Plastics piping systems — Soil and waste discharge systems within the building structure — Performance characteristics for pipes, fittings and their joints

EN 15014:2007 (E)

EN ISO 1167-1, Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure — Part 1: General method (ISO 1167-1:2006)

EN ISO 1167-2, Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure — Part 2: Preparation of pipe test pieces (ISO 1167-2:2006)

prEN ISO 1167-3:2005, Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure — Part 3: Preparation of components (ISO/DIS 1167-3:2005)

prEN ISO 1167-4:2006, Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure — Part 4: Preparation of assemblies (ISO/DIS 1167-4:2006)

EN ISO 3126, Plastics piping systems — Plastics components — Determination of dimensions (ISO 3126:2005)

EN ISO 9001:2000, Quality management systems — Requirements (ISO 9001:2000)

EN ISO 9080, Plastics piping and ducting systems — Determination of the long-term hydrostatic strength of thermoplastics materials in pipe form by extrapolation (ISO 9080:2003)

EN ISO 12162, Thermoplastics materials for pipes and fittings for pressure applications — Classification and designation — Overall service (design) coefficient (ISO 12162:1995)

EN ISO 13783, Plastics piping systems — Unplasticized poly(vinyl chloride) (PVC-U) end-load-bearing double socket joints — Test method for leaktightness and strength while subjected to bending and internal pressure (ISO 13783:1997)

EN ISO 13846, Plastics piping systems — End-load-bearing and non-end-load-bearing assemblies and joints for thermoplastics pressure piping — Test method for long-term leaktightness under internal water pressure (ISO 13846:2000)

ISO 161-1, Thermoplastics pipes for the conveyance of fluids — Nominal outside diameters and nominal pressures — Part 1: Metric series

ISO 17456, Plastics piping systems — Multilayer pipes — Determination of long-term strength

ISO 21004, Plastics piping systems — Multilayer pipes and their joints, based on thermoplastics, for water supply