Plasttorude süsteemid maa-alustele, isevoolsetele drenaaži- ja kanalisatsioonitorustikele. Polüestervaiku sisaldav betoon (PRC). Osa 2: Vaatluskaevud/pääseluugid ja kontrollkambrid

Plastics piping systems for non-pressure drainage and sewerage - Polyester resin concrete (PRC) - Part 2: Manholes and inspection chambers

EESTI STANDARDIKESKUS
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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 14636-2:2010 sisaldab Euroopa standardi EN 14636-2:2009 ingliskeelset teksti.	This Estonian standard EVS-EN 14636-2:2010 consists of the English text of the European standard EN 14636-2:2009.
Standard on kinnitatud Eesti Standardikeskuse 31.01.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 31.01.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 02.12.2009.	Date of Availability of the European standard text 02.12.2009.
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Plastics piping systems for non-pressure drainage and sewerage - Polyester resin concrete (PRC) - Part 2: Manholes and inspection chambers

Systèmes de canalisations en plastique pour les branchements et les collecteurs d'assainissement sans pression - Béton de résine polyester (PRC) - Partie 2: Regards et boîtes d'inspection et de branchement

Kunststoff-Rohrleitungssysteme für drucklos betriebene Abwasserkanäle und -leitungen - Polymerbeton (PRC) - Teil 2: Einsteigschächte und Kontrollschächte

This European Standard was approved by CEN on 3 November 2009.

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

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Contents

Page

Foreword

This document (EN 14636-2:2009) 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of an identical text or by endorsement, at the latest by June 2010, and conflicting national standards shall be withdrawn at the latest by June 2010.

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.

EN 14636, *Plastics piping systems for non-pressure drainage and sewerage — Polyester resin concrete (PRC)*, consists of the following parts:

— *Part 1: Pipes and fittings with flexible joints*

— *Part 2: Manholes and inspection chambers*

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 the United Kingdom.

1 Scope

This European Standard specifies units made from polyester resin concrete (PRC, see 3.1.18), and their joints, for the construction of inspection chambers with inverts not exceeding 2 m deep and for manholes, intended to be used within a drain or sewer system operating without pressure. It applies to products for use outside buildings in buried installations to be installed by open-trench techniques.

This document applies to nominal sizes from DN 600 to DN 3000 for chamber rings and shaft rings having a circular shape.

The intended use of these products is to provide access to buried drain or sewer systems for the conveyance of wastewater, i.e. sewage and surface water, at temperatures up to 50 °C, without pressure or occasionally at a head of pressure up to 0,5 bar[1)], and installed in areas subjected to vehicle and/or pedestrian traffic and outside buildings.

NOTE 1 The attention of readers is drawn to applicable requirements contained in EN 476.

This standard specifies definitions, requirements and characteristics of units and their joints for the construction of manholes and inspection chambers, of materials, test methods, marking and evaluation of conformity.

The units are classified on the basis of its type and the type of structure they are intended to be used.

NOTE 2 It is the responsibility of the purchaser or specifier to make the appropriate selections, taking into account their particular requirements and any relevant national regulations and installation practices or codes.

2 Normative references

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

EN 637, *Plastics piping systems — Glass-reinforced plastics components — Determination of the amounts of constituents using the gravimetric method*

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

EN 705:1994, *Plastics piping systems — Glass-reinforced thermosetting plastics (GRP) pipes and fittings — Methods for regression analysis and their use*

EN 13101, *Steps for underground man entry chambers — Requirements, marking, testing and evaluation of conformity*

EN 13121-1, *GRP tanks and vessels for use above ground — Part 1: Raw materials — Specification conditions and acceptance conditions*

EN 14636-1, *Plastics piping systems for non-pressure drainage and sewerage — Polyester resin concrete (PRC) — Part 1: Pipes and fittings with flexible joints*

EN ISO 75-2:2004, *Plastics — Determination of temperature of deflection under load — Part 2: Plastics, ebonite and long-fibre-reinforced composites (ISO 75-2:2004)*

1) 1 bar = 10^5 N/m^2 = 0,1 MPa.

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

EN ISO 9001:2008, *Quality management systems — Requirements (ISO 9001:2008)*

3 Terms, definitions, symbols and abbreviations

3.1 Terms and definitions

For the purposes of this document the following terms and definitions apply.

NOTE For the purposes of this document a manhole or inspection chamber consists of units and components defined in this clause and as shown in Figure 1.

3.1.1
adjusting unit
component of a manhole or inspection chamber used above the cover slab to adjust the height of the structure and accommodate a cover and frame

3.1.2
angular deflection
δ
angle between the axes of two adjacent units

NOTE It is expressed in degrees (°).

3.1.3
base unit
vertical component of a manhole or inspection chamber, consisting of a chamber ring and a base, with or without benching, incorporating appropriate flexible joints to provide watertight connections to pipelines with or without integral connecting pipe(s) or adaptor(s)

NOTE It is classified by the nominal size of the integrated chamber ring.

3.1.4
chamber ring
vertical hollow component of a manhole or inspection chamber of uniform cross-section

NOTE It is classified by its nominal size. Appropriate flexible joints to provide watertight connections to pipelines with or without integral connecting pipe(s) or adaptor(s) may be incorporated.

3.1.5
connecting pipe
short pipe having plain, socket or spigot ends which provides a connection between a pipeline and a manhole

3.1.6
cover slab
horizontal unit forming the roof of a manhole or inspection chamber, which incorporates an opening for access and above which adjusting unit(s) and/or a cover and frame are intended to fit

3.1.7
crushing load
crushing strength
q_{cr}
maximum short-term load that a component is able to withstand during a crushing strength test

NOTE It is expressed in kilonewtons per metre length (kN/m) or newtons per millimetre length (N/mm).