

**Products and systems for the  
protection and repair of concrete  
structures - Test methods -  
Determination of carbonation depth in  
hardened concrete by the  
phenolphthalein method**

Products and systems for the protection and repair  
of concrete structures - Test methods -  
Determination of carbonation depth in hardened  
concrete by the phenolphthalein method

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14630:2006 sisaldab Euroopa standardi EN 14630:2006 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 24.11.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14630:2006 consists of the English text of the European standard EN 14630:2006.</p> <p>This document is endorsed on 24.11.2006 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b></p> <p>The phenolphthalein test method is intended to measure the depth of the carbonated layer near the surface of hardened concrete. It is not suitable for concrete made with calcium aluminate cement. It may be used on site or in the laboratory, on test specimens or on cores or fragments removed from hardened concrete structures.</p>	<p><b>Scope:</b></p> <p>The phenolphthalein test method is intended to measure the depth of the carbonated layer near the surface of hardened concrete. It is not suitable for concrete made with calcium aluminate cement. It may be used on site or in the laboratory, on test specimens or on cores or fragments removed from hardened concrete structures.</p>
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ICS 91.100.30

Võtmesõnad:

ICS 93.025; 93.030

English Version

## Thermoplastics inspection chamber and manhole bases - Test methods for buckling resistance

Éléments de fond de boîtes d'inspection et de branchement  
et de regards en thermoplastique - Méthodes d'essai de  
résistance au flambage

Böden von Kontroll- und Einsteigschächten aus  
thermoplastischen Kunststoffen - Prüfverfahren für die  
Widerstandsfähigkeit gegen Einbeulen

This European Standard was approved by CEN on 28 August 2006.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, 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

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## Foreword

This European Standard (EN 14830:2006) 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 2007, and conflicting national standards shall be withdrawn at the latest by April 2007.

The relevant performance requirements are contained within the referring standard(s) concerned.

This European Standard is one of a series of standards on test methods that support System Standards for plastics piping systems and ducting systems.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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.

## 1 Scope

This European Standard specifies methods of test for the resistance of the base of thermoplastics inspection chambers and manholes to external soil and ground-water pressure after installation.

NOTE This is intended as a test of the durability and structural integrity of manhole and inspection chamber bases supporting product standards prEN 13598-2 [1] and prEN 15229 [2].

## 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.

ENV 1046:2001, *Plastics piping and ducting systems — Systems outside building structures for the conveyance of water or sewage — Practices for installation above and below ground*

EN ISO 9967:1995, *Thermoplastics pipes — Determination of creep ratio (ISO 9967:1994)*

## 3 Terms and definitions

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

### 3.1

#### **inspection chamber**

drainage or sewerage fitting used for the to connection of drainage or sewerage installations and/or for changing the direction of drainage or sewerage runs. An inspection chamber terminates at ground level, permitting the introduction of cleaning, inspection and test equipment and the removal of debris but it does not provide access for personnel. The riser shaft connected to these fittings has a minimum outer diameter of 200 mm and a maximum inside diameter of less than 800 mm (see also EN 476:1997 [3] for non circular chambers)

NOTE The termination at ground level permits the introduction of cleaning, inspection and test equipment and the removal of debris but does not provide access for personnel.

### 3.2

#### **manhole**

drainage or sewerage fitting used for the connection of drainage or sewerage installations and/or for changing the direction of drainage or sewerage runs. A manhole terminates at ground level, permitting the introduction of cleaning, inspection and test equipment and the removal of debris and also providing access for personnel. The minimum inside diameter of a manhole riser shaft is 800 mm (see also EN 476:1997 [3] for non circular manholes)

NOTE The termination at ground level permits the introduction of cleaning, inspection and test equipment and the removal of debris and provides access for personnel.

## 4 Principle

A sealed test assembly comprising an inspection chamber or manhole base with a minimum height of 300 mm above the top of the main channel, is placed free standing, or buried in a test box on a 100 mm sand or granular bed and covered with granular backfill to a level of minimum 300 mm above the top of the outlets and inlets of the main channel(s). In some cases the first section of the riser may be required in order to achieve the minimum height of 300 mm.