

This document is a preview generated by EVS

Plastics piping systems for non-pressure underground conveyance and storage of non-potable water - Test method for determination of short-term compression strength of boxes (corrected version 01.2020)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 17150:2019 sisaldab Euroopa standardi EN 17150:2019 ingliskeelset teksti.	This Estonian standard EVS-EN 17150:2019 consists of the English text of the European standard EN 17150:2019.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 21.08.2019.	Date of Availability of the European standard is 21.08.2019.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile [standardiosakond@evs.ee](mailto:standardiosakond@evs.ee).

ICS 23.040.01

Standardite reproduutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:  
Koduleht [www.evs.ee](http://www.evs.ee); telefon 605 5050; e-post [info@evs.ee](mailto:info@evs.ee)

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage [www.evs.ee](http://www.evs.ee); phone +372 605 5050; e-mail [info@evs.ee](mailto:info@evs.ee)

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

EN 17150

August 2019

ICS 23.040.01

English Version

Plastics piping systems for non-pressure underground  
conveyance and storage of non-potable water - Test  
method for determination of short-term compression  
strength of boxes

Systèmes de canalisations en plastique pour le  
transport et le stockage souterrains sans pression de  
l'eau non potable - Méthode d'essai pour la  
détermination de la résistance à la compression à court  
terme des structures alvéolaires ultra-légères

Kunststoff-Rohrleitungssysteme für die drucklose  
unterirdische Entwässerung für Nicht-Trinkwasser -  
Prüfverfahren zur Bestimmung der  
Kurzzeitdruckfestigkeit von Versickerungsblöcken

This European Standard was approved by CEN on 19 October 2018.

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
<b>European foreword.....</b>	<b>3</b>
<b>1 Scope.....</b>	<b>4</b>
<b>2 Normative references.....</b>	<b>4</b>
<b>3 Terms and definitions .....</b>	<b>4</b>
<b>4 Symbols and units.....</b>	<b>5</b>
<b>5 Principle .....</b>	<b>5</b>
<b>5.1 General.....</b>	<b>5</b>
<b>5.2 Method A: Constant load rate.....</b>	<b>5</b>
<b>5.3 Method B: Constant displacement rate .....</b>	<b>6</b>
<b>6 Apparatus.....</b>	<b>6</b>
<b>7 Test sample .....</b>	<b>6</b>
<b>7.1 General.....</b>	<b>6</b>
<b>7.2 Age .....</b>	<b>7</b>
<b>7.3 Conditioning.....</b>	<b>7</b>
<b>8 Procedure.....</b>	<b>7</b>
<b>9 Expression of results.....</b>	<b>9</b>
<b>10 Test report.....</b>	<b>10</b>

## European foreword

This document (EN 17150:2019) 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 February 2020, and conflicting national standards shall be withdrawn at the latest by February 2021.

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.

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.

## 1 Scope

This document specifies a method for determining short-term compression strength on boxes made of thermoplastics materials for non-pressure underground conveyance and storage of non-potable water.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 ISO 3126, *Plastics piping systems - Plastics components - Determination of dimensions (ISO 3126)*

EN ISO 7500-1:2018, *Metallic materials - Calibration and verification of static uniaxial testing machines - Part 1: Tension/compression testing machines - Calibration and verification of the force-measuring system (ISO 7500-1:2018)*

## 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

### 3.1

#### **box**

thermoplastic cuboid shaped element, with or without sidewalls, used to create a modular storage system

### 3.2

#### **integral component**

load bearing component contributing to the overall strength of the box

### 3.3

#### **initial height, length, width**

$h_i$ ,  $l_i$ ,  $b_i$

height (test direction), length and width of the sample before testing, respectively, in mm

### 3.4

#### **initial height after pre-load**

$h_0$

height of the sample after applying a pre-load, but before the load is further increased and recorded, in mm