

# norm

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EUROPEAN STANDARD  
 NORME EUROPÉENNE  
 EUROPÄISCHE NORM

**DRAFT**  
**prEN 15013**

March 2011

ICS 93.030

English Version

**Plastics piping systems - Non-pressure drainage and sewerage  
 piping components buried in ground - Requirements and  
 test/assessment methods for pipes and fittings**

Systèmes de canalisations en plastique - Composants de  
 canalisations enterrés pour assainissement sans pression -  
 Exigences et méthodes d'essai/d'évaluation pour tubes et  
 raccords

Kunststoff-Rohrleitungssysteme - Drucklose  
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## Contents

Page

Foreword.....	4
Introduction.....	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions.....	7
4 Requirements.....	7
4.1 Reaction to fire.....	7
4.2 Maximum load for admissible deformation.....	8
4.2.1 General.....	8
4.2.2 Ring stiffness of pipes.....	8
4.2.3 Ring stiffness of fittings.....	8
4.3 Dimensional tolerances.....	9
4.4 Tightness.....	9
4.4.1 Leak-tightness of elastomeric sealing ring connections of thermoplastics piping systems.....	9
4.4.2 Leak-tightness of connections made by using adhesive bonding or fusion techniques.....	9
4.4.3 Leak-tightness of connections of thermosetting piping systems.....	9
4.5 Durability.....	10
4.5.1 Durability of material and construction of pipes and fittings related to maximum load for deformation.....	10
4.5.2 Durability of tightness of elastomeric sealing connections.....	10
4.5.3 Durability of tightness after elevated temperature cycling test of pipes and fittings for area D.....	11
4.6 Release of dangerous substances.....	11
5 Test methods.....	11
5.1 Reaction to fire.....	11
5.2 Maximum load for admissible deformation.....	11
5.2.1 Ring stiffness of thermoplastics pipes.....	11
5.2.2 Ring stiffness of thermosetting pipe.....	11
5.2.3 Ring stiffness of thermoplastics fittings.....	11
5.3 Dimensional tolerances.....	11
5.4 Tightness.....	11
5.4.1 Tightness of thermoplastics ring seal socket connections.....	11
5.4.2 Tightness of thermosetting connections.....	12
5.5 Durability.....	12
5.5.1 Thermoplastics pipes.....	12
5.5.2 Thermosetting pipes (creep ring stiffness).....	13
5.5.3 Tightness after elevated temperature cycling.....	13
6 Evaluation of conformity.....	13
6.1 General.....	13
6.2 Initial Type Testing – Type Testing.....	13
6.2.1 General.....	13
6.2.2 Test samples, testing and compliance criteria.....	15
6.2.3 Test reports.....	16
6.3 Factory production control (FPC).....	17
6.3.1 General.....	17
6.3.2 Requirements.....	17
6.3.3 Product specific requirements.....	21
6.3.4 Procedure for modifications.....	22

<b>6.3.5 One-off products, pre-production products (e.g. prototypes) and products produced in very low quantities .....</b>	<b>22</b>
<b>Annex A (informative) Product standards for buried non-pressure piping systems in plastics materials for drainage and sewerage .....</b>	<b>23</b>
<b>Annex B (informative) Standards for assessment of conformity for non-pressure drainage and sewerage systems in plastics materials buried in ground .....</b>	<b>24</b>
<b>Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Directive .....</b>	<b>25</b>
<b>ZA.1 Scope and relevant characteristics .....</b>	<b>25</b>
<b>ZA.2 Procedure for attestation of conformity of plastics pipes and fittings.....</b>	<b>27</b>
<b>ZA.3 CE marking and labelling.....</b>	<b>30</b>
<b>Bibliography.....</b>	<b>34</b>

Oorbereid  
 Preview

## Foreword

This document (prEN 15013:2011) has been prepared by Technical Committee CEN/TC 155 "Plastics piping systems and ducting systems", the secretariat of which is held by NEN.

This document is currently submitted to the CEN Enquiry.

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 supports essential requirements of EU Directives.

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

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## Introduction

This European Standard specifies only those characteristics of pipes and fittings for non-pressure underground applications for drainage and sewerage that need to be known to determine if the works in which these are to be installed can satisfy the essential requirements of the EU Directive(s). Additional characteristics are specified in the documents listed in Annex A or in other appropriate product specifications.

This harmonised European Standard covers pipes and fittings for non-pressure plastics piping systems buried in ground. Chambers and manholes for non-pressure underground sewers are covered by EN 15229 [1] and EN 15383 [2] under mandate M/118

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## 1 Scope

This European Standard specifies requirements for plastics pipes and fittings intended for non-pressure underground drainage and sewerage applications.

It is intended to be used

- underground in the U area (more than 1 m from the building structure)
- underground in the D area (connected to the soil and waste discharge system and buried within or under the building structure).

It gives the associated test/assessment methods.

This standard does not cover adhesives, joint sealings and gaskets.

NOTE 1: For this standard the term "fitting" includes also the term "joint" as meant by mandate M/131.

The standard does not apply to perforated engineering drainage pipes nor to highway drainage pipes, perforated or non-perforated.

NOTE 2: Perforated engineering drainage pipes will be the subject of another standard under preparation.

## 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 681-3, *Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 3: Cellular materials of vulcanised rubber*

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

EN 1055, *Plastics piping systems — Thermoplastics piping systems for soil and waste discharge inside buildings — Test method for resistance to elevated temperature cycling*

EN 1277, *Plastics piping systems — Thermoplastics piping systems for buried non-pressure applications — Test methods for leaktightness of elastomeric sealing ring type joints*

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

EN 13823, *Reaction to fire tests for building products — Building products excluding floorings exposed to the thermal attack by a single burning item*



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 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 16000, *Plastics piping systems — Systems within the building structure — Mounting and fixing of components in the test apparatus to thermal attack by a single burning item*

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

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

EN ISO 9969, *Thermoplastics pipes — Determination of ring stiffness (ISO 9969:2007)*

EN ISO 13967, *Thermoplastics fittings — Determination of ring stiffness*

EN ISO 13968, *Plastics piping and ducting systems - Thermoplastics pipes - Determination of ring flexibility (ISO 13968:2008)*

ISO 13966, *Thermoplastics pipes and fittings — Nominal ring stiffnesses*

### 3 Terms and definitions

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

#### 3.1

##### **nominal size (DN)**

numeric designation of the size of a component, other than a component designated by thread size, which is a convenient round number approximately equal to the manufacturing dimension, in millimetres (mm)

NOTE This can apply to either the internal diameter (DN/ID) or external diameter (DN/OD).

#### 3.2

##### **nominal outside diameter**

##### **dn**

specified outside diameter, in millimetres, assigned to a nominal size DN (for thermoplastics pipes and fittings)

#### 3.3

##### **nominal ring stiffness (SN)**

numerical designation of the ring stiffness of a pipe or fitting, which is a convenient round number indicating the minimum required ring stiffness of the pipe or fitting

NOTE It is designated by the letters "SN" followed by the appropriate number

#### 3.4

##### **connection**

assembly of pipe(s) and fitting(s)

## 4 Requirements

### 4.1 Reaction to fire

The contribution to fire development of products falling under the scope of this European standard is verified according to the provisions of clause 5.1.

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