



BSI Standards Publication

Plastics piping systems for non-pressure underground drains and sewers — Structured-wall piping systems of unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE)

Part 1: General requirements and performance characteristics

This is a preview of BS EN 13476-1:2025. [Click here to purchase the full version from the ANSI store.](#)

National foreword

This British Standard is the UK implementation of EN 13476-1:2025. It supersedes BS EN 13476-1:2018, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PRI/88, Plastics piping systems.

A list of organizations represented on this committee can be obtained on request to its committee manager.

The UK committee draws users' attention to [National Annex NA](#), which provides further guidance to assist users in the application of this standard.

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Published by BSI Standards Limited 2025

ISBN 978 0 539 39742 0

ICS 23.040.01; 23.040.20; 93.030

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 October 2025.

Amendments/corrigenda issued since publication

Date	Text affected
30 November 2025	Implementation of CEN correction notice 15 October 2025: "plasticized" changed to "unplasticized" in the English title

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EUROPÄISCHE NORM

October 2025

ICS 23.040.01; 93.030

Supersedes EN 13476-1:2018

English Version

Plastics piping systems for non-pressure underground drains and sewers - Structured-wall piping systems of unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE) - Part 1: General requirements and performance characteristics

Systèmes de canalisations en plastique pour les branchements et les collecteurs d'assainissements sans pression enterrés - Systèmes de canalisations à parois structurées en poly(chlorure de vinyle) non plastifié (PVC-U), polypropylène (PP) et polyéthylène (PE) - Partie 1 : Exigences générales et caractéristiques de performance

Kunststoff-Rohrleitungssysteme für erdverlegte drucklose Abwasserkanäle und -leitungen - Rohrleitungssysteme mit profilierter Wandung aus weichmacherfreiem Polyvinylchlorid (PVC-U), Polypropylen (PP) und Polyethylen (PE) - Teil 1: Allgemeine Anforderungen und Leistungsmerkmale

This European Standard was approved by CEN on 23 June 2025.

This European Standard was corrected and reissued by the CEN-CENELEC Management Centre on 15 October 2025.

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.

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

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Contents		Page
European foreword		4
Introduction		6
1	Scope	7
2	Normative references	7
3	Terms and definitions	9
3.1	General definitions	9
3.2	Geometrical definitions	10
3.3	Material definitions	12
3.4	Symbols and abbreviations	14
4	Material	14
4.1	General	14
4.2	Utilization of reworked material and recycle	14
4.3	Sealing ring retaining components	14
4.4	Sealing rings	14
4.5	Fused or welded joints	15
4.6	Adhesives for PVC-U	15
5	Designation of wall construction	15
6	Appearance and colour	15
6.1	Appearance	15
6.2	Colour	15
7	Geometrical characteristics	15
8	Types of fittings	16
8.1	General	16
8.2	Design length of fittings	19
9	System performance related test methods and characteristics	19
10	Marking	21
10.1	General	21
10.2	Marking process	22
10.3	Size	22
Annex A (informative) Characteristics of PVC-U, PP and PE pipes and fittings		23
A.1	General	23
A.2	Material characteristics	23
A.3	Chemical resistance	23
A.4	Abrasion resistance	23
A.5	Hydraulic roughness	23
Annex B (informative) Recommended minimum fitting classes		24
Annex C (informative) Designation of pipes and corresponding fittings		25
Annex D (informative) Guidance in cleaning plastics pipes		27
D.1	General	27

This is a preview of BS EN 13476-1:2025. [Click here to purchase the full version from the ANSI store.](#)

D.2	Cleaning and unblocking	27
D.2.1	Choosing the right equipment	27
D.2.2	Comparing techniques	27
D.3	Conclusions from independent jetting tests	28
D.3.1	Assessing efficiency and impact	28
D.3.2	Testing of plastic pipes	28
D.3.3	Clearing tests	28
D.4	Supplementary cleaning techniques	28
D.5	Recommended practice principles for jetting	29
	Bibliography	31

This is a preview of BS EN 13476-1:2025. [Click here to purchase the full version from the ANSI store.](#)

European foreword

This document (EN 13476-1:2025) 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 2026, and conflicting national standards shall be withdrawn at the latest by April 2026.

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.

This document supersedes EN 13476-1:2018.

The main changes with respect to EN 13476-1:2018 are listed below:

- a) updating of the “terms” and “definition” in line with EN 14541-1;
- b) “drainage and sewerage” changed into “drains and sewers” through the document;
- c) NOTE 1 introduced in Scope;
- d) definitions updated;
- e) 6.1 Appearance updated;
- f) Annex B updated;
- g) editorial updates through the document.

This document is a part of a System Standard for plastics piping systems of particular materials for specified applications. There are a number of such System Standards.

System Standards are based on the results of the work being undertaken in ISO/TC 138 “Plastics pipes, fittings and valves for the transport of fluids”, which is a Technical Committee of the International Organization for Standardization (ISO).

They are supported by separate standards on test methods to which references are made throughout the System Standard.

The System Standards are consistent with general standards on functional requirements and on recommended practice for installation.

EN 13476 consists of the following parts under the general title “Plastics piping systems for non-pressure underground drains and sewers — Structured-wall piping systems of unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE)”:

- *Part 1: General requirements and performance characteristics (this document);*
- *Part 2: Specifications for pipes and fittings with smooth internal and external surface and the system, Type A;*
- *Part 3: Specifications for pipes and fittings with smooth internal and profiled external surface and the system, Type B;*

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— *Part 4: Assessment of conformity* (CEN/TS). (CEN/TS 13476-4:2025).

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, Türkiye and the United Kingdom.

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Introduction

Due to the variety in materials, pipe constructions, application areas and classes, several combinations are possible.

The purchaser or specifier may select between these possibilities by designating the pipe and fitting preferred for each project, as described in Annex C “Designation of pipes and corresponding fittings”, taking into account any particular requirements and relevant national regulations and installation practices or codes.

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1 Scope

This document, together with EN 13476-2 and EN 13476-3, specifies the definitions and general requirements for pipes, fittings and the system based on unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE) structured-wall piping systems that are intended for use in non-pressure underground drains and sewers for foul wastewater.

NOTE 1 Products complying with this document can also be used in non-pressure underground drains and sewers for surface water.

This document is applicable to:

- a) structured-wall pipes and fittings, which are to be used buried in the ground outside a building structure only; reflected by the marking of products by “U”;
- b) structured-wall pipes and fittings, which are to be used buried in ground both outside (application area code “U”) and within a building structure (application area code “D”); reflected in the marking of products by “UD”.

In conjunction with EN 13476-2 and EN 13476-3, it is applicable to structured-wall pipes and fittings with or without an integral socket with elastomeric ring seal joints, as well as welded and fused joints.

This part specifies general aspects and gives guidance concerning a national selection of requirement levels and classes where EN 13476-2 and EN 13476-3 provide options.

EN 13476-2 and EN 13476-3 specify material characteristics, dimensions and tolerances, test methods, test parameters and requirements for pipes with smooth internal and external surfaces, Type A, and pipes with smooth internal and profiled external surfaces, Type B, respectively.

This document, together with EN 13476-2 and EN 13476-3, is applicable to a range of pipe and fitting sizes, materials, pipe constructions, stiffness classes and tolerance classes and offers recommendations concerning colours.

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

NOTE 3 Pipes, fittings and other components conforming to any plastic product standards referred to in Clause 2 can be used with pipes and fittings conforming to this document, when they conform to the requirements for joint dimensions given in EN 13476-2 and to the performance requirements given in Clause 9.

2 Normative references

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

EN 476:2022, *General requirements for components used in drains and sewers*

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*