



NSAI
Standards

Irish Standard
I.S. EN 13598-1:2020

Plastics piping systems for non-pressure underground drainage and sewerage -
Unplasticized poly(vinyl chloride) (PVC-U),
polypropylene (PP) and polyethylene (PE) -
Part 1: Specifications for ancillary fittings
and shallow chambers

I.S. EN 13598-1:2020

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

EN 13598-1:2020

Published:

2020-05-06

*This document was published
under the authority of the NSAI
and comes into effect on:*

2020-06-04

ICS number:

23.040.05

23.040.20

93.030

NOTE: If blank see CEN/CENELEC cover page

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN 13598-1:2020 is the adopted Irish version of the European Document EN 13598-1:2020, Plastics piping systems for non-pressure underground drainage and sewerage - Unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE) - Part 1: Specifications for ancillary fittings and shallow chambers

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This page is intentionally left blank

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 13598-1

May 2020

ICS 23.040.05; 23.040.20; 93.030

Supersedes EN 13598-1:2010

English Version

Plastics piping systems for non-pressure underground
drainage and sewerage - Unplasticized poly(vinyl chloride)
(PVC-U), polypropylene (PP) and polyethylene (PE) - Part
1: Specifications for ancillary fittings and shallow
chambers

Systèmes de canalisations en plastique pour les
branchements et les collecteurs d'assainissement
enterrés sans pression - Poly(chlorure de vinyle) non
plastifié (PVC-U), polypropylène (PP) et polyéthylène
(PE) - Partie 1: Spécifications relatives aux raccords
auxiliaires et aux boîtes d'inspection de branchement
peu profondes

Kunststoff-Rohrleitungssysteme für erdverlegte
drucklose Abwasserkanäle und -leitungen -
Weichmacherfreies Polyvinylchlorid (PVC-U),
Polypropylen (PP) und Polyethylen (PE) - Teil 1:
Anforderungen an Schächte und Zubehörteile und
flache Kammern

This European Standard was approved by CEN on 14 March 2020.

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
European foreword.....	4
1 Scope	6
2 Normative references	7
3 Terms and definitions	9
4 Symbols and abbreviations	12
4.1 Symbols.....	12
4.2 Abbreviations	12
5 Material.....	12
5.1 Ancillary fittings.....	12
5.2 Shallow chambers	13
5.3 Sealing ring retaining components.....	13
6 General characteristics	13
6.1 Appearance.....	13
6.2 Colour	13
6.3 Assemblies.....	13
7 Geometrical characteristics	13
7.1 General.....	13
7.2 Dimensions.....	13
7.2.1 General.....	13
7.2.2 Design lengths	14
7.2.3 Dimensions of ancillary fittings.....	14
7.2.4 Dimensions of shallow chambers.....	14
7.3 Additional requirements for sealed access fittings	14
8 Mechanical characteristics	14
9 Physical characteristics	16
9.1 Injection moulded ancillary fittings.....	16
9.2 Fabricated ancillary fittings	16
10 Performance requirements.....	17
11 Sealing rings.....	19
12 Adhesives	19
13 Marking and additional documentation	19
13.1 General.....	19
13.2 Minimum required marking, sealed access fittings and rodding tees.....	19
13.3 Minimum required marking, mechanical saddles	20
13.4 Minimum required marking, shallow chambers	20
13.5 Additional documentation, shallow chambers.....	21
13.6 Additional documentation, mechanical saddles.....	21
Annex A (normative) Utilization of non-virgin material for shallow chambers	22
A.1 Utilization of non-virgin materials	22
A.2 Material characteristics.....	24

Annex B (normative) Test methods for mechanical saddles	26
B.1 General	26
B.2 Test equipment.....	26
B.3 Procedures	27
B.3.1 Resistance to vertical load – pipe stop test	27
B.3.2 Mechanical strength	28
B.3.3 Tightness under deformation	29
Annex C (normative) Resistance to vertical loading of shallow chambers.....	31
Bibliography	32

EN 13598-1:2020 (E)

European foreword

This document (EN 13598-1:2020) 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 November 2020, and conflicting national standards shall be withdrawn at the latest by November 2020.

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 13598-1:2010.

Compared to the previous version, the main changes are listed below:

- 1) test methods have been updated to the latest EN ISO standards where applicable;
- 2) the scope has been amended to clarify the products covered in this part and avoid confusion with the scope of part 2;
- 3) terms and definitions have been updated and also now include the product diagrams;
- 4) dimensional requirements have been updated and clarified;
- 5) the mechanical characteristics tables have been updated;
- 6) Annex A has been updated with requirements for the utilization of non-virgin materials for shallow chambers.

This document is part of a System Standard for plastics piping systems of a particular material for a specified application. 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 13598 consists of the following parts under the general title *Plastics piping systems for non-pressure underground drainage and sewerage — Unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE)*:

- *Part 1: Specifications for ancillary fittings and shallow chambers* (this document);
- *Part 2: Specifications for manholes and inspection chambers* (under revision);
- *Part 3: Guidance for assessment of conformity* (CEN/TS under revision).

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.

EN 13598-1:2020 (E)

1 Scope

This document specifies the definitions and requirements for ancillary fittings and shallow chambers installed underground in non-pressure drainage and sewerage systems and manufactured from unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP), polypropylene with mineral modifier (PP-MD) or polyethylene (PE) intended for use for:

- non-pressure underground drainage and sewerage outside the building structure (application area code “U”), and
- non-pressure underground drainage and sewerage for both buried in ground within the building structure (application area code “D”) and outside the building structure.

This is reflected in the marking of products by “U” and “UD”.

It also covers the jointing of the ancillary fittings and shallow chambers to the pipework system.

The ancillary fittings covered by this standard are the following:

- sealed access fittings;
- rodding point covers;
- rodding tees;
- mechanical saddles.

Ancillary fittings according to this document are intended for use in pedestrian areas, except rodding tees and mechanical saddles which can also be used in vehicular trafficked areas.

NOTE 1 Pedestrian areas are as defined in EN 124-1.

Ancillary fittings can be installed to a maximum depth of 6,0 m from ground level, with the exception of rodding point covers.

Shallow chambers according to this document are intended for use in private drains located in pedestrian areas above the ground water table, to a maximum depth of 2,0 m from ground level to the invert of the main channel. This document covers shallow chambers with flow profile bases, and their joints to the piping system.

NOTE 2 Manholes and inspection chambers are specified in EN 13598-2 [1].

Ancillary fittings and shallow chambers complying with this document also comply with the general requirements given in EN 476.

Ancillary fittings and shallow chambers can be manufactured by various methods e.g. injection moulding, rotational moulding, spiral winding or fabricated from components made to other standards.

NOTE 3 Products complying with this document can be used with pipes, fittings and other components conforming to any of the plastics products standards listed in Clause 2, providing their dimensions are compatible.

NOTE 4 Products complying with this document can be installed in underground applications without additional static calculation.

NOTE 5 Ancillary fittings and shallow chambers can be subject to national safety regulations and / or local provisions.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-