NSAI
Standards

Irish Standard
I.S. EN 13598-2:2016

# Plastics piping systems for non-pressure underground drainage and sewerage - Unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE) - Part 2: Specifications for manholes and inspection chambers

**I.S. EN 13598-2:2016**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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## National Foreword

I.S. EN 13598-2:2016 is the adopted Irish version of the European Document EN 13598-2:2016, Plastics piping systems for non-pressure underground drainage and sewerage - Unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE) - Part 2: Specifications for manholes and inspection chambers

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EUROPEAN STANDARD

NORME EUROPÉENNE

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# EN 13598-2

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English Version

# Plastics piping systems for non-pressure underground drainage and sewerage - Unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE) - Part 2: Specifications for manholes and inspection 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 2: Spécifications relatives aux regards et aux boîtes d'inspection et de branchement

Kunststoff-Rohrleitungssysteme für erdverlegte drucklose Abwasserkanäle und -leitungen - Weichmacherfreies Polyvinylchlorid (PVC-U), Polypropylen (PP) und Polyethylen (PE) - Teil 2: Anforderungen an Einsteigschächte und Kontrollschächte

This European Standard was approved by CEN on 12 May 2016.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, 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: Avenue Marnix 17, B-1000 Brussels**

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# European foreword

This document (EN 13598-2:2016) 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 January 2017, and conflicting national standards shall be withdrawn at the latest by January 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 13598-2:2009.

EN 13598-2:2016 includes the following significant technical changes with respect to EN 13598-2:2009:

1) Test methods have been updated to those of the latest EN ISO Standards;

2) The confusion generated by having different classes of chamber in Part 1 and Part 2 and their possible misuse because of this has been clarified. This will necessitate a revision of the current Part 1;

3) The limiting clauses on the use of reclaim materials have been updated to help promote the use of reclaim and recycles materials.

This European standard is a supplementary standard for System Standards 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 Organisation for Standardisation (ISO).

They are supported by separate standards on test methods and by European Standards for thermoplastic underground drainage and sewerage systems, 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.

This European Standard 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: Specification for ancillary fittings including shallow inspection chambers*

— *Part 2: Specifications for manholes and inspection chambers* (this standard)

— *Part 3: Assessment of conformity* (CEN/TS)

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

# 1 Scope

This European Standard specifies the definitions and requirements for buried manholes and inspection chambers installed in non-pressure drainage and sewerage systems to a maximum depth of 6 m from ground level to the invert of the main chamber and manufactured from unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP), polypropylene with mineral modifier (PP-MD) or polyethylene (PE). These products are intended for use in pedestrian or vehicular traffic areas and underground installations conforming to the general requirements given in EN 476 and are used outside the building structure (application area code "U"). They are therefore marked accordingly with a "U". Such products are also deemed to meet the requirements of EN 13598-1 for application area U without the need for further testing.

These manholes and inspection chambers may also be used for storm-water systems.

This European Standard is only applicable to those chamber / manhole components (base, riser, cone telescopic part and other near surface components) where the manufacturer has clearly stated in the documentation how the components shall be assembled to create a complete manhole or inspection chamber. This European standard only covers manholes and chambers with flow profile bases with or without sloping channels. It also covers the jointing of the component to the pipework system.

The frame cover and grating components shall, unless otherwise specified, comply with EN 124-1, EN 124-2, EN 124-3, EN 124-4, EN 124-5 and EN 124-6 [1] or EN 1253-4[2].

The products covered by this European standard comprise the following:

— manholes constructed on a drain or sewer to permit entry by personnel.

— inspection chambers providing access to the drainage or sewerage system by means of inspection and cleaning equipment.

NOTE 1 Shallow inspection chambers for use in non-roadway situations down to a depth of 1,25 m max are specified in EN 13598-1.

The manhole and inspection chamber components can be manufactured by various methods e.g. injection moulding, rotational moulding, low-pressure moulding or fabricated from components made in accordance with other standards.

NOTE 2 Both manholes and inspection chambers can be site assembled from different components, but can also be manufactured as a single unit.

# 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 476, *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 681-3, *Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 3: Cellular materials of vulcanized rubber*