BSI Standards Publication

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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National foreword

This British Standard is the UK implementation of EN 13598-2:2020. It supersedes BS EN 13598-2:2016, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PRI/88/1, Plastics piping for non-pressure applications.

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

The responsible UK committee gives the following advice concerning the scope and contents of EN 13598-2:2020.

- **Main changes from previous version:** Attention is drawn to the European foreword which lists the main changes from EN 13598-2:2016.
- **Intended use:** Attention is drawn to the intended use detailed in the scope of this standard. The relationship with BS EN 13598-1:2020 is clarified.
- **Guidance on use and installation:** Clause NA6.4 of the National Annex to BS EN 752:2017 gives the UK guidance on access to drains and sewers especially in respect to provision and spacing of access, clear opening size at the surface, and dimensions for operational needs. Attention is also drawn to Building Regulations when applying this standard. Where manholes or inspection chambers are to be adopted or vested, attention is drawn to the provisions of the adopting body with respect to products in accordance with this standard.
- **Recycled materials:** The use of recycled or reprocessed materials is encouraged in the UK. However, their use should be strictly in accordance with this standard.
- **Impact:** Table 6 of BS EN 13598-2:2020 details an impact strength (drop test) at -10°C. This is not required in the UK.

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

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Amendments/corrigenda issued since publication

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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 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

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Contents

Page

This document (EN 13598-2:2020) 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 month 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 13598-2:2016.

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 1;

3) terms and definitions have been updated and explanatory diagrams are now included;

4) material durability test requirements have been included for riser, cone and telescopic adaptor components. The durability test method (Annex A) has also been updated;

5) the permitted use of non-virgin materials has been clarified and a new Annex D included, with conditions and requirements for non-virgin materials;

6) fitness for purpose testing of factory fabricated components is now included;

7) the minimum marking requirement for components other than bases has been updated.

This document is part of a System Standard for plastics piping systems of a particular material for a specified application.

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.

This document does not cover sewage pump chambers, valve chambers and similar products.

Separate standard(s) for manholes, inspection chambers and road gullies for storm water systems are currently under investigation.

pressure underground drainage and sewerage — Unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE):

— *Part 1: Specification for ancillary fittings and shallow chambers* (under revision);

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

— *Part 3: 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.

This document specifies the definitions and requirements for unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE) manholes and inspection chambers intended for non-pressure underground drainage and sewerage systems up to a maximum depth of 6 m from ground level to the invert of the manhole or inspection chamber.

This document covers manholes and inspection chambers, with bases having a flow channel, and their joints to the piping system.

Manholes and inspection chambers are intended to be used in pedestrian or vehicular traffic areas outside the building structure.

NOTE 1 The intended use in underground installation outside the building structure is reflected in the marking of products by the application area code “U”.

NOTE 2 Products complying with this document can also be used in non-traffic areas.

NOTE 3 Products complying with this standard can be installed in underground applications without additional static calculation.

NOTE 4 Shallow chambers are specified in EN 13598-1 [1].

Manholes and inspection chambers complying with EN 13598-2 are made from a prescribed set of components that are manufactured from unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP), polypropylene with mineral modifier (PP-MD) or polyethylene (PE) and assembled together.

NOTE 5 The complete manhole or inspection chamber assembly can also include items which are not covered by this document (for example near surface or surface components).

NOTE 6 Manholes and inspection chambers can be supplied with covers, frame covers and gratings complying with the relevant part of EN 124 [2].

Manholes and inspection chambers complying with EN 13598-2 may be used for storm-water systems.

Manhole and inspection chamber components can be manufactured by various methods e.g. extrusion, injection moulding, rotational moulding, low-pressure moulding or fabricated.

NOTE 7 Manholes and inspection chambers can be site assembled from different components, but can also be manufactured as a single unit.

NOTE 8 Manholes and inspection chambers can be subject to national regulations and / or local provisions.

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 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*