



**BSI Standards Publication**

# **Plastics piping systems for non-pressure underground drainage and sewerage — Unplasticized poly(vinyl chloride) (PVC-U)**

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Part 2: Guidance for the assessment of conformity

## National foreword

This Published Document is the UK implementation of CEN/TS 1401-2:2020. It supersedes PD CEN/TS 1401-2:2012, which is withdrawn.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 secretary.

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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### 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) - Part 2: Guidance for the assessment of  
conformity**

Systèmes de canalisations en plastique pour les  
branchements et les collecteurs d'assainissement  
enterrés sans pression - Poly(chlorure de vinyle) non  
plastifié (PVC-U) - Partie 2 : Guide pour l'évaluation de  
la conformité

Kunststoff-Rohrleitungssysteme für erdverlegte  
drucklose Abwasserkanäle und -leitungen -  
Weichmacherfreies Polyvinylchlorid (PVC-U) - Teil 2:  
Empfehlungen für die Beurteilung der Konformität

This Technical Specification (CEN/TS) was approved by CEN on 8 December 2019 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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<b>Contents</b>	<b>Page</b>
European foreword.....	3
Introduction .....	4
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions .....	6
4 Abbreviated terms.....	9
5 General.....	9
6 Testing and inspection.....	10
6.1 Material specification.....	10
6.2 Grouping.....	11
6.2.1 General.....	11
6.2.2 Size groups.....	11
6.2.3 Fitting groups .....	11
6.3 Type testing.....	12
6.4 Batch release tests .....	15
6.5 Process verification tests .....	18
6.6 Audit tests .....	19
6.7 Indirect tests.....	21
6.8 Test records .....	22
Annex A (informative) Basic test matrix.....	23
Bibliography.....	24

## European foreword

This document (CEN/TS 1401-2:2020) has been prepared by Technical Committee CEN/TC 155 “Plastics piping systems and ducting systems”, the secretariat of which is held by NEN.

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 CEN/TS 1401-2:2012.

Compared with CEN/TS 1401-2:2012, the following changes have been made:

- merging of Table 1 and Table 2 to have the new Table 1 “Formulation tolerances”;
- clarification that a lower content of non-virgin material in the formulation which has already been Type tested and which is fulfilling the agreed specification is not considered as a material change;
- increase of minimum testing frequencies if a non-virgin material is used.

EN 1401, *Plastics piping systems for non-pressure underground drainage and sewerage — Unplasticized poly(vinyl chloride) (PVC-U)*, consists of the following Parts:

- *Part 1: Specifications for pipes, fittings and the system;*
- *Part 2: Guidance for the assessment of conformity.*

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to announce this Technical Specification: 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.

## Introduction

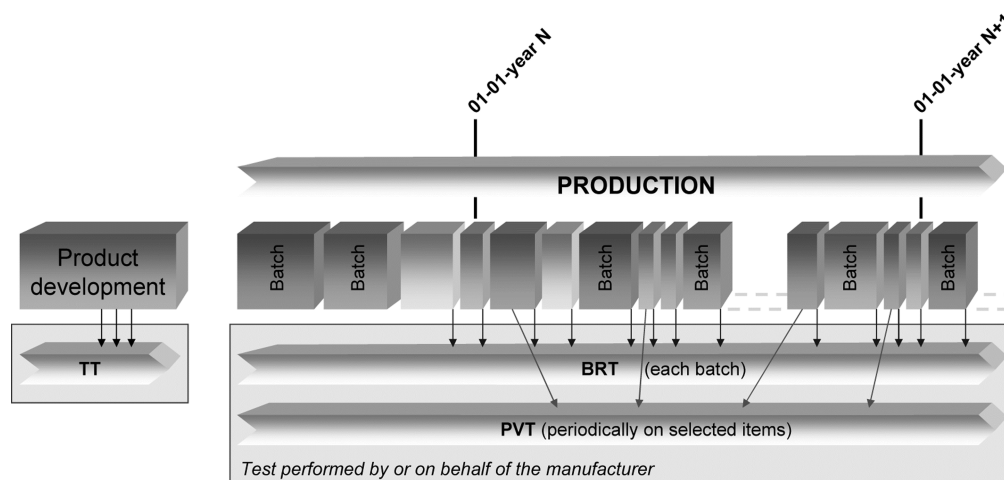
This revision of the EN 1401 series is proposed in order to improve the 'level of sustainability' and the 'environmental impact' of PVC piping systems, whilst improving the recommendations and safe use of recycled material. Recycled material is categorised as non-virgin material in this document.

Regarding this specific target, more focus was given to the control of applied material formulation and to the final characteristics and performance of products.

This document is based on the template prepared in CEN/TC 155/WG21 version V.5.

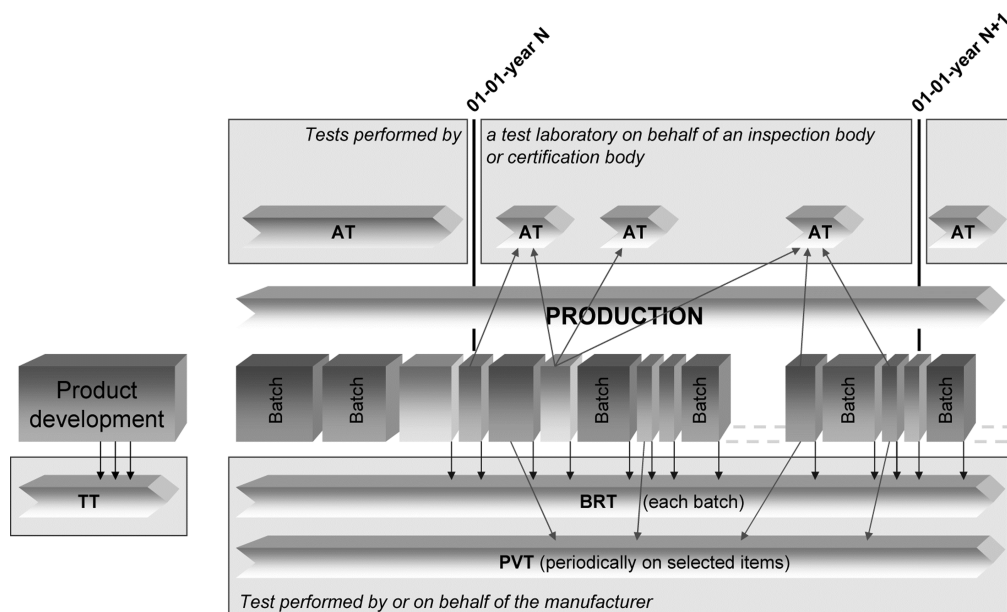
Figures 1 and 2 are intended to provide general information on the concept of testing and organization of those tests used for the purpose of the assessment of conformity. This document details the applicable characteristics to be assessed as well as the frequency and sampling of testing for each type of test, i.e. type testing (TT), batch release test (BRT), process verification test (PVT) and audit test (AT).

A typical scheme for the assessment of conformity of formulations pipes, fittings, assemblies by manufacturers is given in Figure 1.



**Figure 1 — Typical scheme for the assessment of conformity by a manufacturer**

A typical scheme for the assessment of conformity of formulations, pipes, fittings, assemblies by manufacturers, including a third-party certification, is given in Figure 2.



**Figure 2 — Typical scheme for the assessment of conformity by a manufacturer, including a third party certification**

## 1 Scope

This document gives requirements and guidance for the assessment of conformity of formulations, products and assemblies in accordance with EN 1401-1 intended to be included in the manufacturer's quality plan as part of the quality management system and for the establishment of third-party certification procedures.

NOTE 1 The quality management system is expected to conform to or is no less stringent than the relevant requirements to EN ISO 9001 [1].

NOTE 2 If third party certification is involved, the certification body is expected to be compliant with either EN ISO/IEC 17065 [2] or EN ISO/IEC 17021-series [3], as applicable.

NOTE 3 In order to help the reader, a basic test matrix is given in Annex A.

In conjunction with EN 1401-1, this document is applicable to piping systems made of unplasticized poly(vinyl chloride) (PVC-U) intended for non-pressure underground drainage and sewerage:

- buried in ground outside the building structure (application area code "U");
- both buried in ground within the building structure and outside the building structure (application area code "UD").

## 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 1401-1:2019, *Plastics piping systems for non-pressure underground drainage and sewerage — Unplasticized poly(vinyl chloride) (PVC-U) — Part 1: Specifications for pipes, fittings and the system*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1401-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

### 3.1 certification body

impartial body, governmental or non-governmental, possessing the necessary competence and responsibility to carry out certification of conformity according to given rules of procedure and management

Note 1 to entry: A certification body is preferably compliant with EN ISO/IEC 17065 [2].