
Cevni sistemi iz polimernih materialov za (nizko- in visokotemperaturne) odvodne sisteme v zgradbah - Nemehčan polivinilklorid (PVC-U) - 2. del: Navodilo za ugotavljanje skladnosti

Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Unplasticized poly(vinyl chloride) (PVC-U) - Part 2: Guidance for the assessment of conformity

Kunststoff-Rohrleitungssysteme zum Ableiten von Abwasser (niedriger und hoher Temperatur) innerhalb der Gebäudestruktur - Weichmacherfreies Polyvinylchlorid (PVC-U) - Teil 2: Empfehlungen für die Beurteilung der Konformität

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Systèmes de canalisations en plastique pour l'évacuation des eaux-vannes et des eaux usées (à basse et à haute température) à l'intérieur de la structure des bâtiments - Poly(chlorure de vinyle) non plastifié (PVC-U) - Partie 2 : Guide pour l'évaluation de la conformité

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23.040.20	Cevi iz polimernih materialov	Plastics pipes
91.140.80	Drenažni sistemi	Drainage systems

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FprCEN/TS 1329-2

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English Version

Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure -
Unplasticized poly(vinyl chloride) (PVC-U) - Part 2:
Guidance for the assessment of conformity

Systèmes de canalisations en plastique pour l'évacuation des eaux-vannes et des eaux usées (à basse et à haute température) à l'intérieur de la structure des bâtiments - Poly(chlorure de vinyle) non plastifié (PVC-U) - Partie 2 : Guide pour l'évaluation de la conformité

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This draft Technical Specification is submitted to CEN members for Vote. It has been drawn up by the Technical Committee CEN/TC 155.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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European foreword

This document (FprCEN/TS 1329-2:2020) has been prepared by Technical Committee CEN/TC 155 “Plastics piping systems and ducting systems”, the secretariat of which is held by NEN.

This document is currently submitted to the Vote on TS.

This document will supersede CEN/TS 1329-2:2018.

Compared with CEN/TS 1329-2:2018, 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 1329 consists of the following parts, under the general title “*Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Unplasticized poly(vinyl chloride) (PVC-U)*”:

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

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Introduction

This revision of the EN 1329 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 categorized 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. For each type of test, i.e. type test (TT), batch release test (BRT), process verification test (PVT) and audit test (AT), this document details the applicable characteristics to be assessed and the frequency and sampling of testing.

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

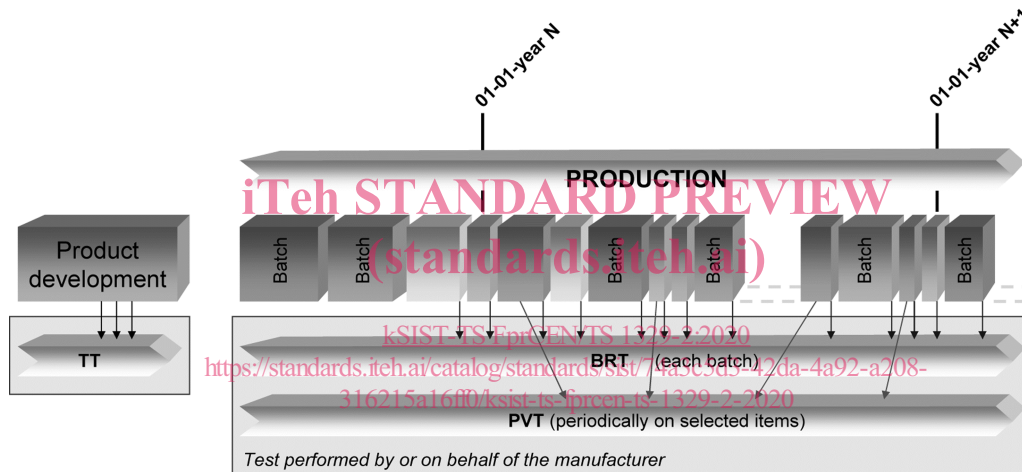


Figure 1 — Typical scheme for the assessment of conformity by a manufacturer

A typical scheme for the assessment of conformity of formulations, pipes, fittings, valves or assemblies by manufacturers, including certification, is given in Figure 2.

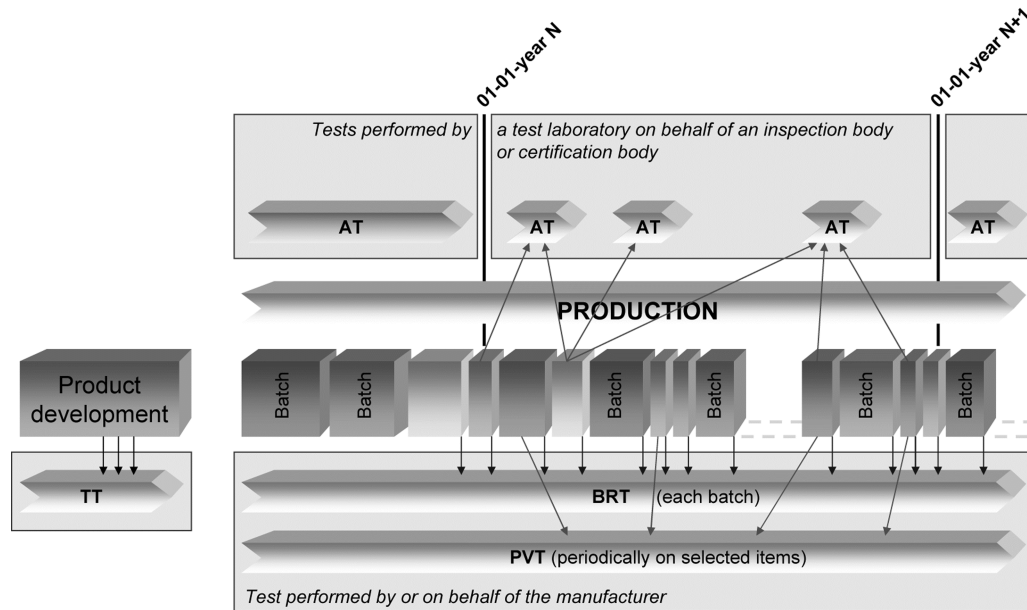


Figure 2 — Typical scheme for the assessment of conformity by a manufacturer, including third party certification

1 Scope

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This document gives requirements and guidance for the assessment of conformity of formulations, products and assemblies in accordance with EN 1329-1 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 1329-1, this document is applicable to piping systems made of unplasticized poly(vinyl chloride) (PVC-U) intended for soil and waste discharge systems (low and high temperature):

- inside buildings (application area code "B");
- both inside buildings and buried in ground within the building structure (application area code "BD").

2 Normative references

The following documents are referred to in the text in such a way that some 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 1329-1, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Unplasticized poly(vinyl chloride) (PVC-U) — Part 1: Specifications for pipes, fittings and the systems*

FprCEN/TS 1329-2:2020 (E)

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1329-1 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].

3.2 inspection body

body, that performs inspection

Note 1 to entry: An inspection body can be an organization or part of an organization.

Note 2 to entry: An inspection body is preferably compliant with EN ISO/IEC 17020 [4].

3.3 testing laboratory

laboratory which measures, tests, calibrates or otherwise determines the characteristics of the performance of materials and products

Note 1 to entry: In the context of this document, the materials and products can be subjected to type testing, batch release testing, process verification testing, audit testing and witness testing, as applicable.

Note 2 to entry: A testing laboratory is preferably compliant with EN ISO/IEC 17025 [5].

3.4 quality management system

part of a management system with regard to quality

Note 1 to entry: Requirements for quality management systems are given in EN ISO 9001 [1].

[SOURCE: EN ISO 9000:2015 [6], 3.5.4, modified — Note 1 to entry is introduced here]

3.5 quality plan

document setting out the specific quality practices, resources and sequence of activities relevant to a particular product or range of products

3.6 type testing

TT
testing performed to prove that the formulation, product, joint or assembly is capable of conforming to the requirements given in the relevant standard

Note 1 to entry: The type test results remain valid until there is a change in the formulation or product or assembly provided that the process verification tests are done regularly.

3.7

batch release test

BRT

test performed by or on behalf of the manufacturer on a batch of materials or products, which has to be satisfactorily completed before the batch can be released

3.8

process verification test

PVT

test performed by, or on behalf of the manufacturer on formulation, products or joints or assemblies at specific intervals to confirm that the process continues to be capable of producing products which conform to the requirements given in the relevant standard

Note 1 to entry: Such tests are not required to release batches of formulation or products; but they are carried out as a measure of process control.

3.9

audit test

AT

test performed by a test laboratory on behalf of an inspection body or certification body to confirm that the formulation, product, joint or assembly continues to conform to the requirements given in the relevant standard and to provide information to assess the effectiveness of the quality management system

3.10

indirect test

IT

test performed by or on behalf of the manufacturer, different from that specified test for that particular characteristic, having previously verified its correlation with the specified test

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3.11

witness test

WT

test accepted by an inspection or a certification body for type testing and/or audit testing, which is carried out by or on behalf of the manufacturer and supervised by a representative of the inspection or certification body, qualified in testing

3.12

material

generic term for formulations grouped by families, expressed by generic names, e.g. poly(vinyl chloride), stainless steel, brass or EPDM

3.13

formulation

clearly defined homogenous mixture of base polymer with additives, i.e. anti-oxidants, pigments, stabilizers and others, at a dosage level necessary for the processing and the intended use of the final product

Note 1 to entry: The term “compound” is sometime used with similar meaning as “formulation”.

Note 2 to entry: A formulation may contain virgin and/or non-virgin material.

FprCEN/TS 1329-2:2020 (E)**3.14****material batch**

clearly identified quantity of a given homogeneous formulation manufactured under uniform conditions and defined and identified by the formulation manufacturer

3.15**product**

pipe or fitting of a clearly identified type intended to be a part of a piping system which the manufacturer puts on the market

3.16**product batch**

clearly identified collection of products, manufactured consecutively or continuously under the same conditions, using the same formulation conforming to the same specification

Note 1 to entry: The production batch is defined and identified by the product manufacturer.

3.17**sample**

one or more products drawn from the same production batch, selected at random without regard to their quality

Note 1 to entry: The number of products in the sample is the sample size.

3.18**group**

defined collection of similar products from which samples are selected for testing purposes

Note 1 to entry: Similar products may have different shapes or diameter or functions (see Table 3 and Table 4).

3.19**component**

product manufactured out of a specific formulation, brought to the market as part of another product or as a spare part

3.20**joint**

connection between two products

3.21**assembly**

product that can be dismantled into a set of components

3.22**cavity**

part of the injection mould which gives the form to the injection moulded product

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4 Abbreviated terms

To avoid misunderstanding, the abbreviations in this Clause are defined as being the same in each language. For the same reason, the terms are given in the three languages, English, French and German.

	EN	FR	DE
AT	audit test	essai d'audit	Überwachungsprüfung
BRT	batch release test	essai de libération de campagne de fabrication	Freigabeprüfung einer Charge
IT	indirect test	essai indirect	indirekte Prüfung
PVT	process verification test	essai de vérification du process	Prozessüberprüfung
TT	type testing	essai de type	Typprüfung
WT	witness test	essai en présence de témoin	Prüfung unter Aufsicht

5 General

Formulations, products, joints and assemblies shall conform to the requirements given in EN 1329-1.

Products shall be produced by the manufacturer under a quality management system which includes a quality plan (including specifications on joints and assemblies).

NOTE It is expected that the quality management system conforms to or is no less stringent than the relevant requirements in EN ISO 9001 [1].

6 Testing and inspection

6.1 Material specification

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For the purposes of this document, the material specification consists of a formulation which defines PVC resin, additives, non-virgin material (if applicable) and their dosage levels.

The dosage level of ingredients of a formulation shall not exceed the tolerance given in Table 1. If any dosage level exceeds the tolerance or if a type is changed, this variation constitutes a change in material (it is referred to as "M" in Tables 4 to 6).

In Table 1, the values of the parts X added to 100 parts by mass of PVC shall be specified by the manufacturer in the quality plan.