



SLOVENSKI STANDARD
kSIST-TS FprCEN/TS 17152-3:2022
01-maj-2022

Cevni sistemi iz polimernih materialov, ki delujejo po težnostnem principu in so položeni v zemljo, za transport in shranjevanje vode, ki ni namenjena pitju - Zaboji za sisteme infiltriranja, reduciranja in hrambe - 3. del: Ugotavljanje skladnosti

Plastics piping systems for non-pressure underground conveyance and storage of non-potable water - Boxes used for infiltration, attenuation and storage systems - Part 3: Assessment of conformity

Kunststoff-Rohrleitungssysteme für die drucklose unterirdische Entwässerung für Nicht-Trinkwasser - Versickerungsblöcke zur Verwendung in Infiltrations-, Zwischenspeicher- und Speichersystemen - Teil 3: Beurteilung der Konformität

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Ta slovenski standard je istoveten z: FprCEN/TS 17152-3

ICS:

23.040.03 Cevovodi za zunanje sisteme Pipeline and its parts for
transporta vode in njihovi deli external water conveyance
systems

kSIST-TS FprCEN/TS 17152-3:2022 en,fr,de

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FprCEN/TS 17152-3

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English Version

Plastics piping systems for non-pressure underground conveyance and storage of non-potable water - Boxes used for infiltration, attenuation and storage systems - Part 3: Assessment of conformity

Kunststoff-Rohrleitungssysteme für die drucklose unterirdische Entwässerung für Nicht-Trinkwasser - Versickerungsblöcke zur Verwendung in Infiltrations-, Zwischenspeicher- und Speichersystemen - Teil 3: Beurteilung der Konformität

iTeh STANDARD
PREVIEW

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (FprCEN/TS 17152-3:2022) 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.

EN 17152 consists of the following parts, under the general title "*Plastics piping systems for non-pressure underground conveyance and storage of non-potable water — Boxes used for infiltration, attenuation and storage systems*":

- *Part 1: Specifications for storm water boxes made of PP and PVC-U;*
- *Part 2: Specifications for systems (water reservoir) - (under development);*
- *Part 3: Assessment of conformity (the present CEN/TS).*

This version of Part 3 covers products according to Part 1.

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Introduction

This document details the applicable characteristics to be assessed for type testing (TT), batch release test (BRT), process verification test (PVT), and audit test (AT), as well as the frequency and sampling for testing.

The concept of testing and organisation of those tests used for the AoC is shown, without or with certification, in Figures 1 and 2.

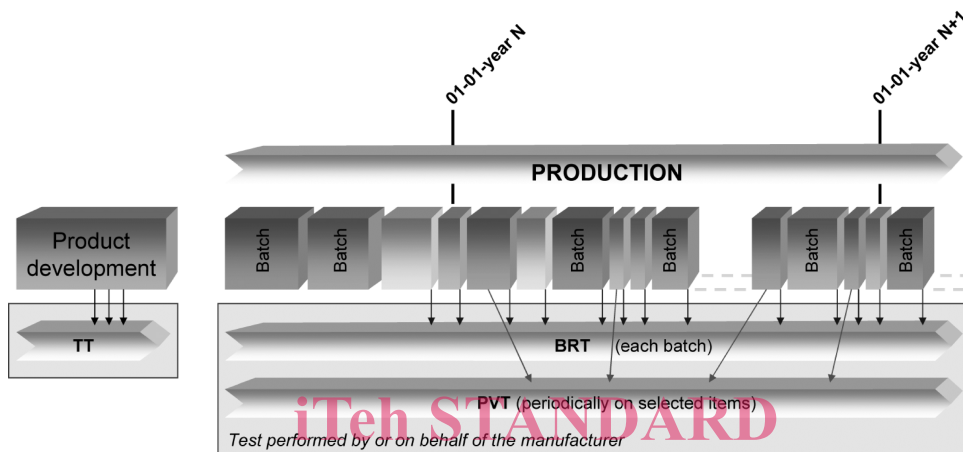


Figure 1 — Typical scheme for the assessment of conformity by a manufacturer (standards.iteh.ai)

A typical scheme for the assessment of conformity of materials or box assemblies by manufacturers, including certification, is given in Figure 2.

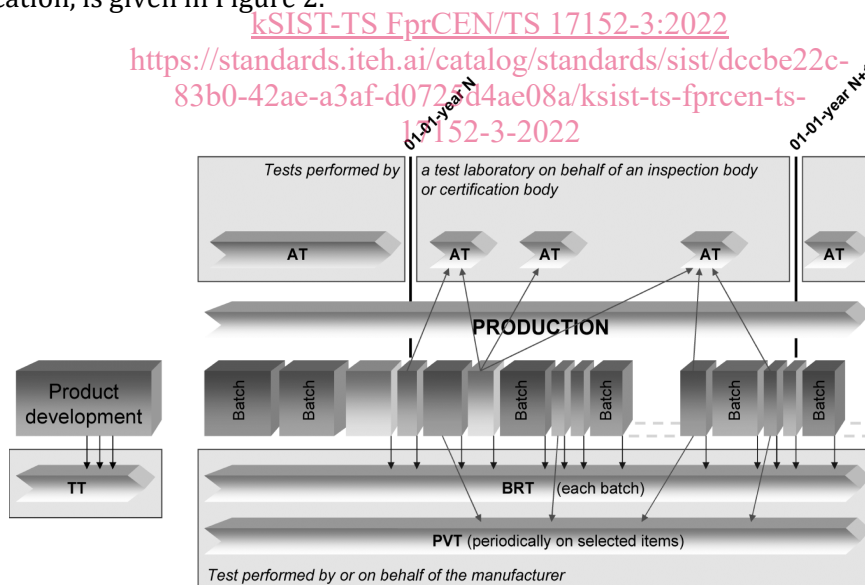


Figure 2 — Typical scheme for the assessment of conformity by a manufacturer, including certification

1 Scope

This document gives guidance for requirements for the AoC of materials, compounds, formulations, products, and assemblies in accordance with the applicable part(s) of EN 17152 intended to be included in the manufacturer's quality plan as part of the quality management system and for the establishment of certification procedures.

NOTE Annex B, Table B.1 contains a summary of tests for TT and surveillance monitoring.

In conjunction with EN 17152-1 (see Foreword) this document is applicable to Boxes used for infiltration, attenuation and storage systems.

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 17152-1:2019, *Plastics piping systems for non-pressure underground conveyance and storage of non-potable water — Boxes used for infiltration, attenuation and storage systems — Part 1: Specifications for storm water boxes made of PP and PVC-U*

EN 17151, *Plastics piping systems for non-pressure underground conveyance and storage of non-potable water — Test method for determination of long-term compression strength of boxes*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 17152-1 and the following apply. ISO and IEC maintain terminological databases for use in standardization at the following addresses:

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

3.1

certification body

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

Note 1 to entry: In this document, certification is understood as third party certification

Note 2 to entry: For assessment purposes, the certification body can delegate tasks to an inspection body or a testing laboratory

Note 3 to entry: The certification body preferably operates in accordance with EN ISO/IEC 17065 [1].

3.2

inspection body

body that performs examination of a product, process, service, or installation or their design and determination of its conformity with specific requirements or, on the basis of professional judgment, with general requirements

[SOURCE: EN ISO/IEC 17020:2012 [2], definition 3.5 combined with definition 3.1 modified – Notes to entry 1, 2, 3 and 4 are not included]

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Note 1 to entry: An inspection body is, either an organisation or a part of an organisation, mandated by the certification body

Note 2 to entry: An inspection body preferably operates in accordance with EN ISO/IEC 17020 [2].

3.3 testing laboratory

laboratory which measures, tests, calibrates or otherwise verifies the performance of the characteristics 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 and audit testing, as applicable

Note 2 to entry: A testing laboratory preferably operates in accordance with EN ISO/IEC 17025 [3]

3.4 quality management system

part of a management system regard to quality

[SOURCE: EN ISO 9000:2015 [4], definition 3.5.4]

Note 1 to entry: Requirements for quality management systems are given in EN ISO 9001 [6].

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

test performed to prove that the product is capable of conforming to the requirement(s) given in the relevant standard

3.7 batch release test BRT

BRT test performed on a batch of material, products, which has to be satisfactorily completed before the batch can be released

Note 1 to entry: A batch release test can be performed by the manufacturer or outsourced on behalf of the manufacturer

3.8 process verification test PVT

test performed on material, product 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: Process verification tests can be performed by the manufacturer or outsourced on behalf of the manufacturer.

Note 2 to entry: Process verification tests are regularly performed to demonstrate that the product remains compliant with the type test results.

3.9**audit test****AT**

test performed on behalf of a certification body

Note 1 to entry: Audit tests are generally required to confirm that the product, 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**

batch release test performed which differs from that specified test for that particular characteristic, having previously verified its correlation with the specified test

Note 1 to entry: Indirect tests can be performed by the manufacturer or outsourced on behalf of the manufacturer

3.11**Witness test**

type test or audit test which is performed in the presence of a representative of the certification body

3.12**material**

generic term for compounds/formulations grouped by families, expressed by generic names

Note 1 to entry: Examples of generic names are PVC-U, polypropylene and EPDM

3.13**compound/formulation**

homogenous mixture of substances used for the manufacture of the product as defined in the referring product standard <https://standards.iteh.ai/catalog/standards/sist/dccbe22c-83b0-42ae-a3af-d0725d4ae08a/ksist-ts-fprcen-ts-17152-3:2022>

Note 1 to entry: In general, the term “compound” is used for polyolefins and the term “formulation” for PVC

3.14**material batch**

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

3.15**product batch**

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

3.16**sample**

one or more components or products drawn from the same production batch [or a lot], selected at random without regard to their quality

3.17**group**

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

FprCEN/TS 17152-3:2022 (E)**3.18****component**

item manufactured out of a specific composition compound/formulation, supplied as part of a product or as a spare part for that product

3.19**product**

item as defined in the scope of the standard, e.g. box

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	Freigabepfung einer Charge
IT	indirect test	essai indirect	indirekte Prüfung
PVT	process verification test	essai de vérification du procédé de fabrication	Prozessüberprüfung
TT	type test	essai de type	Typprüfung

5 General

Materials, products and fitness for purpose shall conform to the requirements given in EN 17152-1.

Materials and products shall be produced by the manufacturer under a quality management system which includes a quality plan.

6 Testing and inspection**6.1 Group**

For the purpose of this document, the groups specified below apply:

All products are part of one group.

6.2 Type testing

Type testing is intended to demonstrate the ability of the product to fulfil the intended use and characteristics detailed in the referring product standard.

Type testing shall be performed as described in Table 1 whenever there is:

- a new system (N);
- a change in design (D);
- a change in material (M);

For the purposes of this document, see 6.2, Table 1, it shall be considered as a change of:

PP compound, if any of the following requirements are not fulfilled:

- EN 17152-1:2019, 5.2.2 for virgin materials;

- EN 17152-1:2019, 5.2.3 for materials modified with minerals;
- EN 17152-1:2019, 5.2.4 for non-virgin materials;
- the requirements for PP in EN 17152-1:2019, Table A.1;

PVC-U formulation, if any of the following requirements are not fulfilled:

- EN 17152-1:2019, 5.3.2 for virgin materials;
- EN 17152-1:2019, 5.3.3 for non-virgin materials;
- the requirements for PVC-U in EN 17152-1:2019, Table 1;

- d. a change in production processing method (P), other than routine in-process adjustments;
- e. an extension of the product range (E).

NOTE 1 As a result of deviation of process verification test (see 6.4) there can be a need to revalidate the Type testing.

Unless any of the conditions a) to e) above occurs, the type test results remain valid.

A type test may be performed by the manufacturer or outsourced on behalf of the manufacturer.

NOTE 2 If certification is involved, the certification body can request the location of the test.

Type tests shall demonstrate that the products conform to all requirements for the characteristics given in Table 1, as applicable.

Table 1 — Characteristics of products that require type testing

Characteristic	Reference to EN 17152-1	Conditions requiring test ^a				Sampling frequency
		N	D	M	P	
Resistance to internal pressure (PP and PVC-U) or Tensile creep rupture (PP and PVC-U)	Table 1	+		+		Once per compound /formulation
Melt mass-flow rate (MFR) before processing (PP)	Table 1	+		+		Once per compound
k-value only virgin (PVC-U)	Table 1	+		+		Once per formulation
Vicat softening temperature (PVC-U)	Table 1	+		+		Once per formulation
Thermal stability (OIT) (PP)	Table 1	+		+		Once per compound
Flexural modulus 500 h (PP and PVC-U)	Table 1	+		+		Once per compound /formulation