

SLOVENSKI STANDARD

SIST-TS CEN/TS 1451-2:2020

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Nadomešča:

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Cevni sistemi iz polimernih materialov za (nizko- in visokotemperaturne) odvodne sisteme v zgradbah - Polipropilen (PP) - 2. del: Navodilo za ugotavljanje skladnosti

Plastic piping systems for soil and waste discharge (low and high temperature) within the building structure - Polypropylene (PP) - Part 2: Guidance for the assessment of conformity

Kunststoff-Rohrleitungssysteme zum Ableiten von Abwasser (niedriger und hoher Temperatur) innerhalb der Gebäudestruktur - Polypropylen (PP) - 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 - Polypropylène (PP) - Partie 2: Guide pour l'évaluation de la conformité

Ta slovenski standard je istoveten z: CEN/TS 1451-2:2019

ICS:

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

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en,fr,de

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TECHNICAL SPECIFICATION
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Supersedes CEN/TS 1451-2:2012

English Version

Plastic piping systems for soil and waste discharge (low and high temperature) within the building structure - Polypropylene (PP) - 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 - Polypropylène (PP) - Partie 2: Guide pour l'évaluation de la conformité

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

This Technical Specification (CEN/TS) was approved by CEN on 7 October 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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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (CEN/TS 1451-2:2019) 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 1451-2:2012. The main technical changes in the latest version of CEN/TS 1451-2 are due the revision of EN 1451-1 from 1998.

EN 1451 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 — Polypropylene (PP)*

- Part 1: *Specifications for pipes, fittings and the system*
- Part 2: *Guidance for the assessment of conformity* (the present TS)

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.

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Introduction

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

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

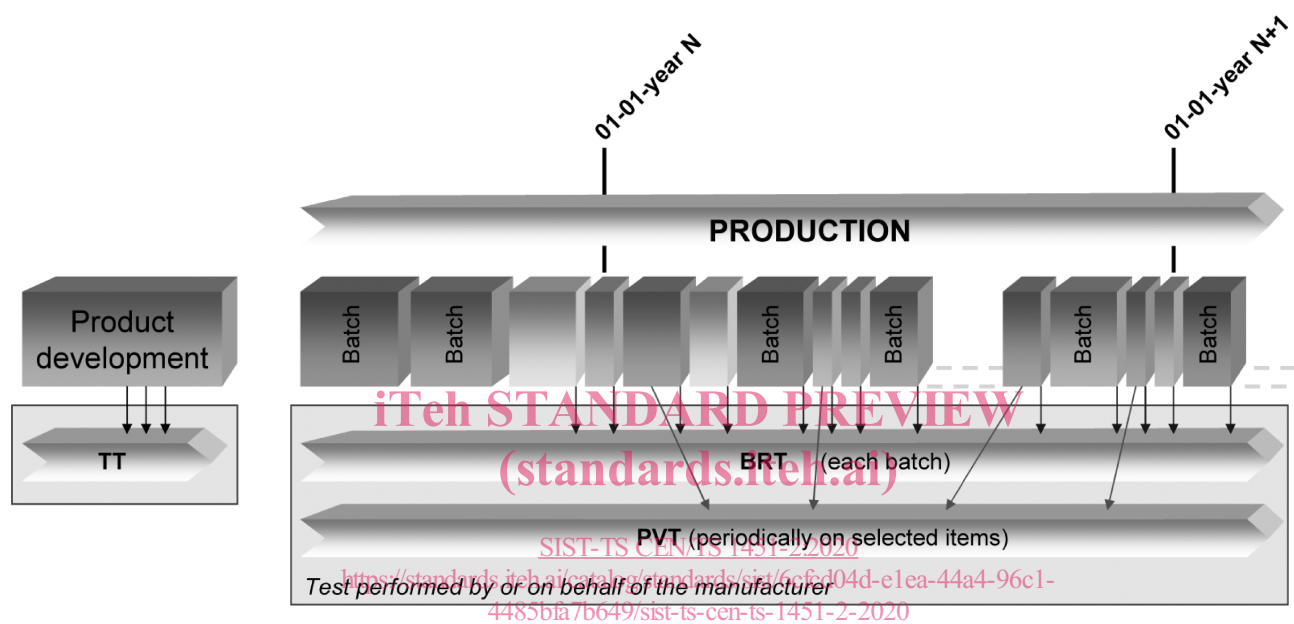


Figure 1 — Typical scheme for the assessment of conformity by a manufacturer

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

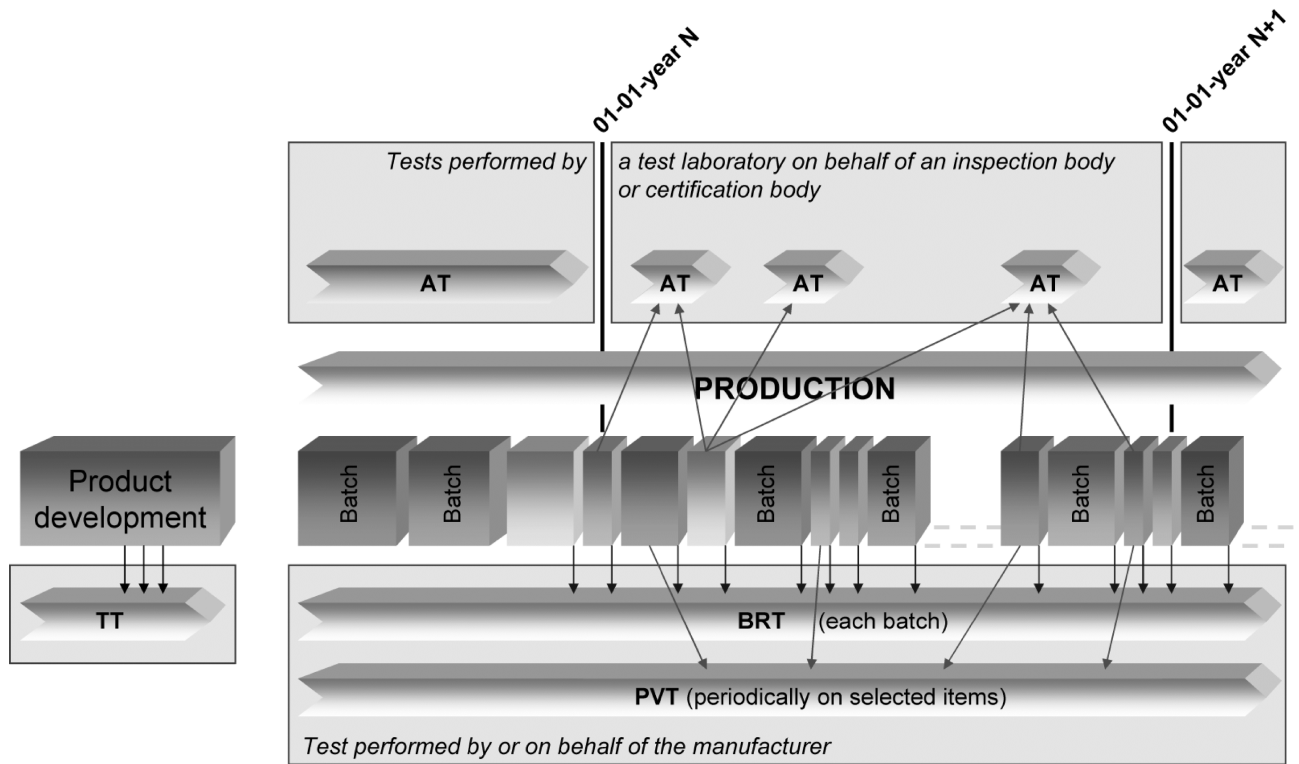


Figure 2 — Typical scheme for the assessment of conformity by a manufacturer, including a third-party certification

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1 Scope

This document gives guidance for the assessment of conformity of materials, products, joints and assemblies in accordance with the applicable part(s) of EN 1451 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 accredited to EN ISO/IEC 17065 [2] or EN ISO/IEC 17021 [3], as applicable.

NOTE 3 In order to help the readers, a summary of the test regime is given in Annex A.

In conjunction with EN 1451-1 this document is applicable to piping systems made of polypropylene (PP) intended to be used:

- for soil and waste discharge systems (low and high temperature) inside buildings (application area code "B") and,
- for soil and waste discharge systems (low and high temperature) for both inside buildings and buried in ground within the building structure (application area code "BD")

This is reflected in the marking of products by "B" or "BD".

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2 Normative references

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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 1451-1:2017,¹ *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Polypropylene (PP) - 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 1451-1 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>

¹ As impacted by EN 1451-1:2017/AC:2018.

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 accredited to EN ISO/IEC 17065 [2].

3.2**inspection body**

impartial organisation or company, approved by the certification body as possessing the necessary competence to verify and/or to carry out initial type testing, audit testing and inspection of the manufacturer's factory production control in accordance with the relevant standard

Note 1 to entry: A inspection body is preferably accredited to 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 part of EN 1451, 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 accredited to EN ISO/IEC 17025 [5].

3.4**quality management system**

part of a management system regard to quality

[Source: EN ISO 9000:2015 [6], definition 3.5.4]

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

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 material, 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 material 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 needs to be satisfactorily completed before the batch can be released

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3.8**process verification test****PVT**

test performed by or on behalf of the manufacturer on materials, products or joints 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 materials or products and 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 material, 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

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

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3.12**material**

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

EXAMPLE: Examples of generic names are polypropylene, stainless steel, brass or EPDM.

Note 1 to entry: Definition from European Commission, Directorate-General for Enterprise and Industry, Sub-group on Product Testing Procedures (EC, DG ENT and IND, SG PTP).

3.13**compound**

clearly defined homogenous mixture of base polymer with additives, i.e. antioxidants, pigments, stabilizers and others, at a dosage level necessary for the processing and the intended use of the final product, including non-virgin material (if applicable)

3.14**material batch**

clearly identified quantity of a given homogeneous compound/formulation manufactured under uniform conditions and defined and identified by the compound/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 material 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**

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

3.19**component**

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

3.20**joint**

connection between two products

3.21**assembled product**

assembled final product using two or more single parts

3.22**fabricated fitting**

fitting produced from pipe and/or from injection-moulded fittings by thermoforming or welding

3.23**assembly**

product that can be dismantled into a set of components

EXAMPLE A test piece consisting of various products.

3.24**sampling plan**

specification of the type of sampling to be used combined with the operational specification of the entities or increments to be taken, the samples to be constituted and the measurements or tests to be made

EXAMPLE A specific plan which indicates the number of units of products or assemblies to be inspected.

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