SLOVENSKI STANDARD
SIST-TS CEN/TS 12200-2:2017

01-april-2017

Nadomešča:
SIST- TS CEN/TS 12200-2:2003

Cevni sistemi iz polimernih materialov za odvod padavinskih voda za zunanjo uporabo - Nemehčan polivinilklorid (PVC-U) - 2. del: Smernice za ugotavljanje skladnosti

Plastics rainwater piping systems for above ground external use - Unplasticized poly (vinyl chloride) (PVC-U) - Part 2: Guidance for the assessment of conformity

Kunststoff-Rohrleitungssysteme für außenliegende Regenfalleitungen - Weichmacherfreies Polyvinylchlorid (PVC-U) - Teil 2: Empfehlungen für die Beurteilung der Konformität

Systèmes de canalisations de descentes d'eaux pluviales en plastique à usage externe en aérien - Poly(chlorure de vinyle) non plastifié (PVC-U) - Partie 2 : Guide pour l'évaluation de la conformité

Ta slovenski standard je istoveten z: **CEN/TS 12200-2:2017**

ICS:

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

SIST-TS CEN/TS 12200-2:2017 **en,fr,de**

TECHNICAL SPECIFICATION

SPÉCIFICATION TECHNIQUE

TECHNISCHE SPEZIFIKATION

CEN/TS 12200-2

February 2017

ICS 23.040.05

Supersedes CEN/TS 12200-2:2003

English Version

Plastics rainwater piping systems for above ground external use - Unplasticized poly(vinyl chloride) (PVC-U) - Part 2: Guidance for the assessment of conformity

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This Technical Specification (CEN/TS) was approved by CEN on 4 December 2016 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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. CEN/TS 12200-2:2017 E

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European foreword

This document (CEN/TS 12200-2:2017) 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 12200-2:2003.

Compared with CEN/TS 12200-2:2003, the following changes have been made:

a) use of the template drafted by CEN/TC 155/WG 21 for assessment of conformity documents (change of "Terms and definitions" and addition of 1 column "Sampling procedures" in Tables);

b) introduction of "Limits of addition of PVC reprocessed and recycled material" in a separate table (Table 2);

c) addition of an informative Annex A: Basic test matrix.

EN 12200 consists of the following Parts, under the general title "*Plastics rainwater piping systems for above ground external use — Unplasticized poly (vinyl chloride) (PVC-U)*":

— 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 European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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 test (TT), batch release test (BRT), process verification test (PVT) and audit test (AT), this part of EN 12200 details the applicable characteristics to be assessed and the frequency and sampling of testing.

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

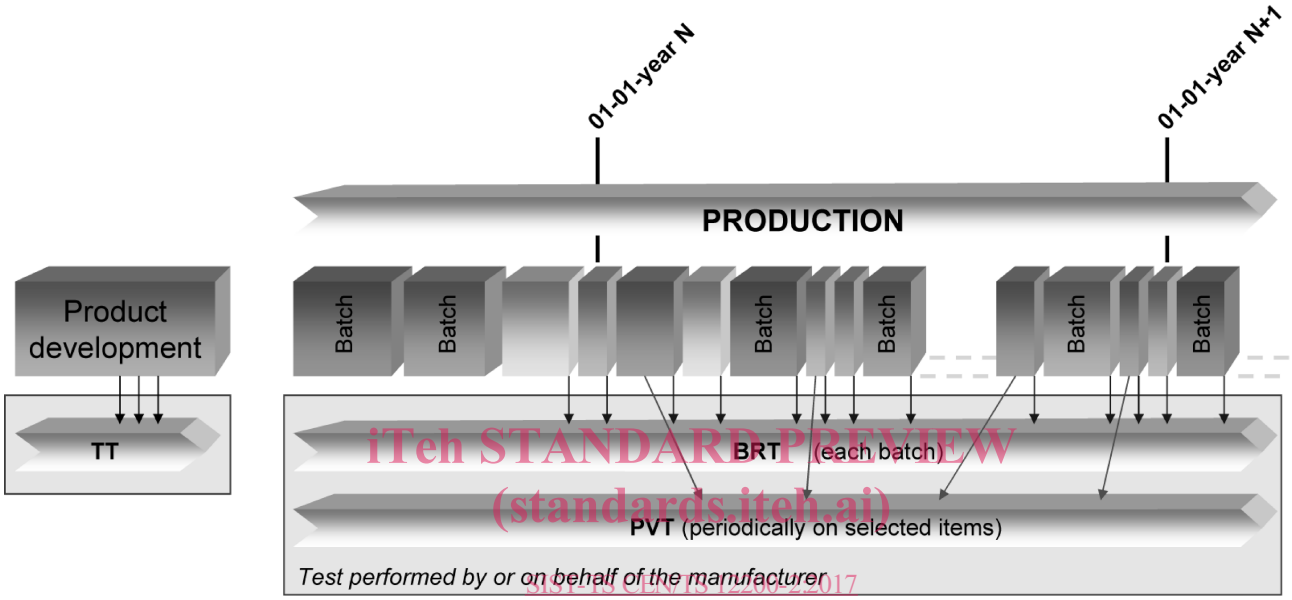

Figure 1 — Typical scheme for the assessment of conformity by a manufacturer

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

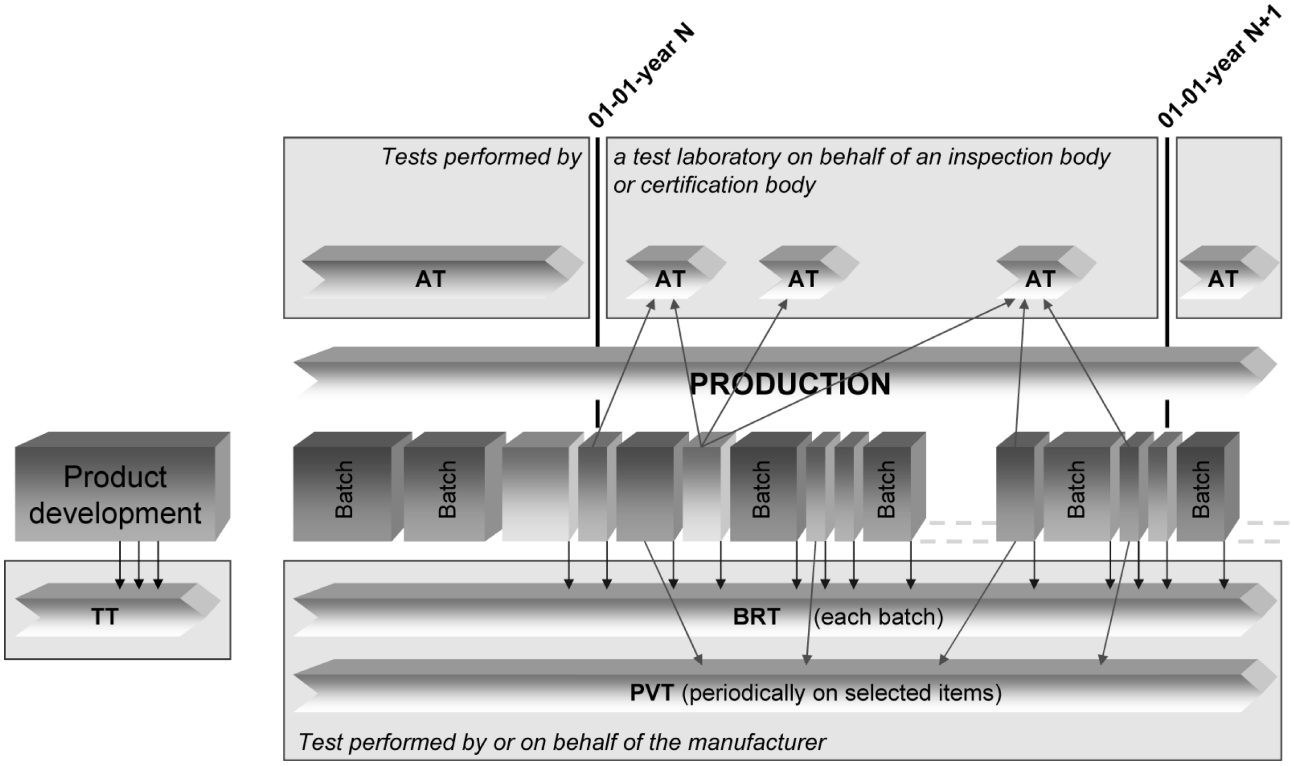

Figure 2 — Typical scheme for the assessment of conformity by a manufacturer, including certification

1 Scope

This part of EN 12200 gives guidance for the assessment of conformity of formulations, products, joints and assemblies in accordance with EN 12200-1:2016 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 In order to help the reader, a basic test matrix is given in Annex A.

In conjunction with EN 12200-1:2016, this document is applicable to piping systems made of unplasticized poly(vinyl chloride) (PVC-U) intended to be used for above ground external rainwater, and to fittings and brackets made of acrylic materials which may be used in combination with the pipes.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 12200-1:2016, *Plastics rainwater piping systems for above ground external use - 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 12200-1:2016, and the following apply.

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 17021 [2].

3.2
inspection body
body, that performs inspection

[SOURCE: EN ISO/IEC 17020:2012 [3], 2.2]

Note 1 to entry: A body can be an organization, or part of an organization.

Note 2 to entry: A inspection body is preferably compliant with EN ISO/IEC 17020 [3].

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 12202, 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 [4].

3.4
quality management system
management system to direct and control an organization with regard to quality

[SOURCE: EN ISO 9000:2015 [5], 3.2.3]

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 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 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

3.8
process verification test
PVT
test performed by, or on behalf of the manufacturer on materials, 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 materials or products; rather 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 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

3.12
material
generic term for formulations grouped by families, expressed by generic names, e.g. poly(vinyl chloride) (PVC), 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
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”.

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 formulations and 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 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

EXAMPLE A test piece consisting of various products.

3.22
sampling plan
specification of the type of sampling to be used in combination 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.

3.23
product type
generic description of a product

EXAMPLE A pipe or its main parts, of the same design, from a particular formulation.

3.24
cavity
(moulding) space within a mould to be filled to form the moulded product

EXAMPLE That part of the injection mould which gives the form to the injection moulded product.

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 procédé de fabrication	Prozessüberprüfung
TT	type test	essai de type	Typprüfung
WT	witness testing	essai témoin	Prüfung unter Aufsicht

5 General

5.1 Formulation, products, joints and assemblies shall conform to the requirements given in EN 12200-1.

5.2 Products and assemblies shall be produced by the manufacturer under a quality management system which includes a quality plan .

It is recommended 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

6.1.1 PVC-U material

For the purposes of this Technical Specification the material specification consists of a formulation which defines PVC resin and additives and their dosage levels.

The dosage level of ingredients of a formulation shall not exceed the tolerance bands given in Table 1. If any level exceeds the dosage band or if a type (see Table 1) is changed, this variation constitutes a change in formulation.

The use of reprocessed and/or recycled material shall be considered as a change in formulation when the change in addition exceeds the tolerance bands given in Table 2.

The values of Parts *X* added to 100 parts by mass of PVC, shall be specified by the manufacturer in his quality plan.