

SLOVENSKI STANDARD SIST-TS CEN/TS 17176-7:2020

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Cevni sistemi iz polimernih materialov za oskrbo z vodo in za podzemne in nadzemne sisteme odvodnjavanja, kanalizacije ter namakanja pod tlakom -Orientiran nemehčan polivinilklorid (PVC-O) - 7. del: Ugotavljanje skladnosti

Plastics piping systems for water supply and for buried and above ground drainage, sewerage and irrigation under pressure - Oriented unplasticized poly(vinyl chloride) (PVC-O) - Part 7: Assessment of conformity

Kunststoff-Rohrleitungssysteme für die Wasserversorgung und für erdverlegte und nicht erdverlegte Entwässerung, Abwasser- und Bewässerungsdruckleitungen - Orientiertes weichmacherfreies Polyvinylchlorid (PVC-O) - Teil 7: Beurteilung der Konformität

SIST-TS CEN/TS 17176-7:2020

Systèmes de canalisations en plastique pour l'alimentation en eau, les branchements et collecteurs d'assainissement et les systèmes d'irrigation sous pression, enterres ou aériens - Poly(chlorure de vinyle) non plastifié orienté (PVC-O) - Partie 7 : Evaluation de la conformité

Ta slovenski standard je istoveten z: CEN/TS 17176-7:2020

ICS:

23.040.01	Deli cevovodov in cevovodi na splošno	Pipeline components and pipelines in general
91.140.80	Drenažni sistemi	Drainage systems
93.030	Zunanji sistemi za odpadno vodo	External sewage systems

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English Version

Plastics piping systems for water supply and for buried and above ground drainage, sewerage and irrigation under pressure - Oriented unplasticized poly(vinyl chloride) (PVC-O) - Part 7: Assessment of conformity

Systèmes de canalisations en plastique pour l'alimentation en eau, les branchements et collecteurs d'assainissement et les systèmes d'irrigation sous pression, enterres ou aériens - Poly(chlorure de vinyle) non plastifié orienté (PVC-O) - Partie 7 : Evaluation de la conformité Kunststoff-Rohrleitungssysteme für die Wasserversorgung und für erdverlegte und nicht erdverlegte Entwässerung, Abwasser- und Bewässerungsdruckleitungen - Orientiertes weichmacherfreies Polyvinylchlorid (PVC-O) - Teil 7: Beurteilung der Konformität

This Technical Specification (CEN/TS) was approved by CEN on 24 May 2020 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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CEN/TS 17176-7:2020 (E)

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European foreword

This document (CEN/TS 17176-7:2020) has been prepared by Technical Committee CEN/TC 155 "Plastics piping systems and ducting systems", the secretariat of which is held by CEN TC 155.

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.

EN 17176 consists of the following parts, under the general title *Plastics piping systems for water supply* and for buried and above ground drainage, sewerage and irrigation under pressure — Oriented unplasticized poly(vinyl chloride) (PVC-O):

- a) Part 1: General;
- b) Part 2: Pipes;
- c) Part 3: Fittings;
- d) Part 5: Fitness for purpose of the system;
- e) Part 7: Assessment of conformity (this document).

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 organisation of those tests used for the purpose of the assessment of conformity. For each type of tests (i.e. type testing (TT), batch release test (BRT), process verification test (PVT) and audit test (AT), this part of EN 17176 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 compounds/formulations, 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 compounds/formulations, pipes, fittings, joints or assemblies by manufacturers, including a certification, is given in Figure 2.



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1 Scope

This document gives requirements and guidance for the assessment of conformity of compounds/formulations, products, joints and assemblies in accordance with the applicable parts of EN 17176 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 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 be accredited to EN ISO/IEC 17065 [2] or EN ISO/IEC 17021 [3], as applicable.

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

In conjunction with EN 17176-1, EN 17176-2, CEN/TS 17176-3 and EN 17176-5, this document is applicable to oriented unplasticized poly(vinyl chloride) (PVC-O) plastics piping systems for water supply and for buried and above-ground drainage, sewerage and irrigation under pressure.

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 17176-1:2019, Plastics piping systems for water supply and for buried and above ground drainage, sewerage and irrigation under pressure Sociented unplasticized poly(vinyl chloride) (PVC-0) — Part 1: General

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EN 17176-2:2019, Plastics piping systems for water supply and for buried and above ground drainage, sewerage and irrigation under pressure 73 Oriented unplasticized poly(vinyl chloride) (PVC-0) — Part 2: Pipes

CEN/TS 17176-3:2019, Plastics piping systems for water supply and for buried and above ground drainage, sewerage and irrigation under pressure — Oriented unplasticized poly(vinyl chloride) (PVC-O) — Part 3: Fittings

EN 17176-5:2019, Plastic piping systems for water supply and for buried and above ground drainage, sewerage and irrigation under pressure — Oriented unplasticized poly(vinyl chloride) (PVC-O) — Part 5: Fitness for purpose of the system

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 17176-1 and CEN/TS 17176-3, 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 accredited to EN ISO/IEC 17065 [2]

3.2

inspection body

impartial organization 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

eh STANDARD PREVI An inspection body is preferably accredited to EN ISO/IEC 17020 [4]. Note 1 to entry:

3.3

testing laboratory

SIST-TS CEN/TS 17176-7:2020 laboratory which measures, tests, calibrates or otherwise determines the characteristics of the performance of materials and products)6f6/sist-ts-cen-ts-17176-7-2020

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In the context of this document, the materials and products can be subject to type testing, batch Note 1 to entry: 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

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

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

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 test 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 formulation/compound 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/compound or 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

Such tests are not required to release batches of formulation/compound or products and are Note 1 to entry: carried out as a measure of process control TANDARD PREVIEW

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3.9

audit test

AT

SIST-TS CEN/TS 17176-7:2020 test performed by a test laboratory on behalf of an inspection body or certification body to confirm that the formulation/compound, 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 compositions (compounds/formulations) grouped by families, expressed by generic names, e.g. polypropylene, stainless steel, brass or EPDM

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

8

3.13

compound/formulation

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

Note 1 to entry: In water and food contact regulations, the term "composition" is often used instead of compound or formulation.

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 compound/formulation conforming to the same specification

Note 1 to entry: The production batch is defined and identified by the product manufacturer. (standards.iteh.ai)

3.18

sample

sampleSIST-TS CEN/TS 17176-7:2020one or more products_drawn from the same production batch_selected_at_random without regard to theirquality8b738acc06f6/sist-ts-cen-ts-17176-7:2020

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

3.19

group

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

3.20

component

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

3.21

joint

connection between two products

3.22

assembled product

assembled final product using two or more single parts

3.23

assembly

product that can be dismantled into a set of components

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 test to be made

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

3.25

product type

generic description of a product

EXAMPLE A pipe or fitting or their main parts, of the same design, from a particular compound/formulation.

3.26 body type generic description of a body

EXAMPLE A pipe or fitting or their main parts, of the same design, from a particular compound.

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.

- AT en: audit test
 - fr: essai d'audit
- iTeh STANDARD PREVIEW (standards.iteh.ai)
- de: Überwachungsprüfung
- SIST-TS CEN/TS 17176-7:2020
- BRT en: batch release test://standards.iteh.ai/catalog/standards/sist/f15989c1-769a-46b5-a634
 - fr: essai de libération de campagne de fabrication
 - de: Freigabeprüfung einer Charge
- IT en: indirect test
 - fr: essai indirect
 - de: indirekte Prüfung
- PVT en: process verification test
 - fr: essai de vérification du procédé de fabrication
 - de: Prozessüberprüfung
- TT en: type test
 - fr: essai de type
 - de: Typprüfung
- WT en: witness test
 - fr: essai témoin
 - de: Prüfung unter Aufsicht