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

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

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

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 |

kSIST-TS FprCEN/TS 17176-7:2020 **en,fr,de**

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
<https://standards.iteh.ai/catalog/standards/sist/f15989c1-769a-46b5-a634-8b738acc06f6/ksist-ts-fprcen-ts-17176-7-2020>

TECHNICAL SPECIFICATION
SPÉCIFICATION TECHNIQUE
TECHNISCHE SPEZIFIKATION

FINAL DRAFT
FprCEN/TS 17176-7

January 2020

ICS 23.040.01; 91.140.80

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, enterrés ou aériens - Poly(chlorure de vinyle)
non plastifié orienté (PVC-O) - Partie 7 : Evaluation de
la conformité

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

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

CEN members are the national standards bodies of 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 United Kingdom.

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.

Warning : This document is not a Technical Specification. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a Technical Specification.



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

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

| Contents | Page |
|---|-------------|
| European foreword..... | 3 |
| Introduction | 4 |
| 1 Scope..... | 6 |
| 2 Normative references..... | 6 |
| 3 Terms and definitions | 6 |
| 4 Abbreviated terms..... | 10 |
| 5 General..... | 10 |
| 6 Testing and inspection..... | 10 |
| 6.1 Grouping..... | 10 |
| 6.1.1 General..... | 10 |
| 6.1.2 Size groups..... | 10 |
| 6.1.3 Fitting groups | 11 |
| 6.2 Type tests (TTs) | 11 |
| 6.3 Batch release tests (BRTs)..... | 17 |
| 6.4 Process verification tests (PVTs)..... | 19 |
| 6.5 Audit tests (ATs)..... | 21 |
| 6.6 Indirect tests (Its) | 24 |
| 6.7 Test records | 24 |
| Annex A (informative) Basic test matrix for PVC-O water and pressure sewer piping | 25 |
| Bibliography..... | 27 |

European foreword

This document (FprCEN/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.

This document is currently submitted to the Vote on TS.

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)*.

ITeH STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
<https://standards.iteh.ai/catalog/standards/sist/f15989c1-769a-46b5-a634-8b738acc06f6/ksist-ts-fprcen-ts-17176-7-2020>

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.

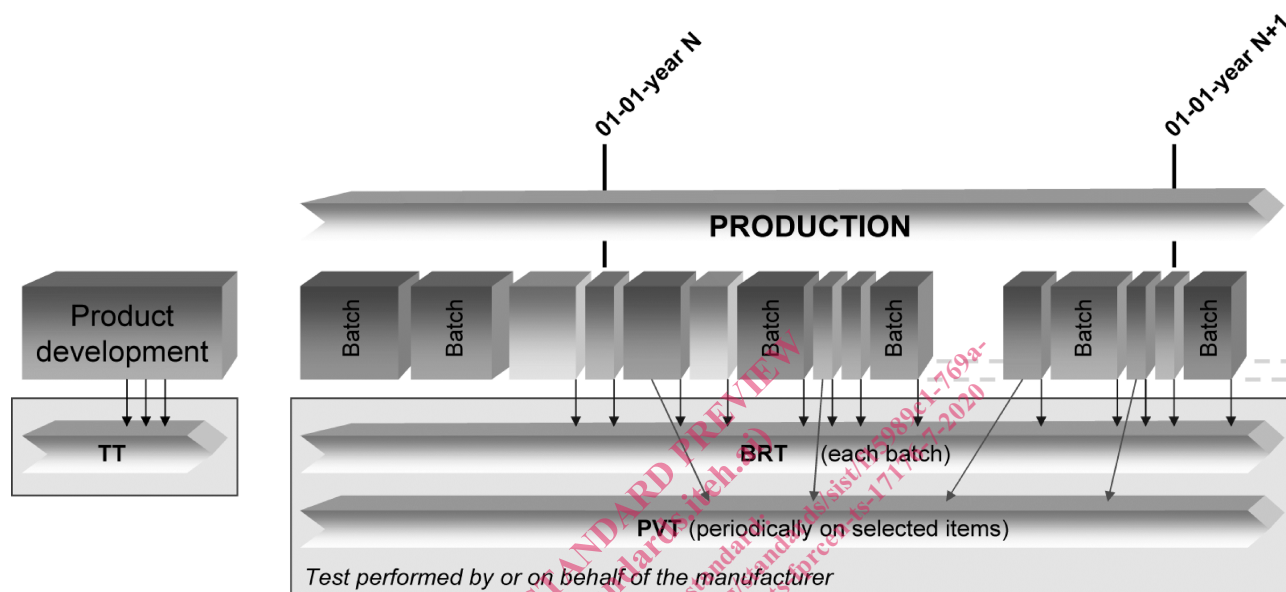


Figure 1 — Typical scheme for the assessment of conformity by a manufacturer

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.

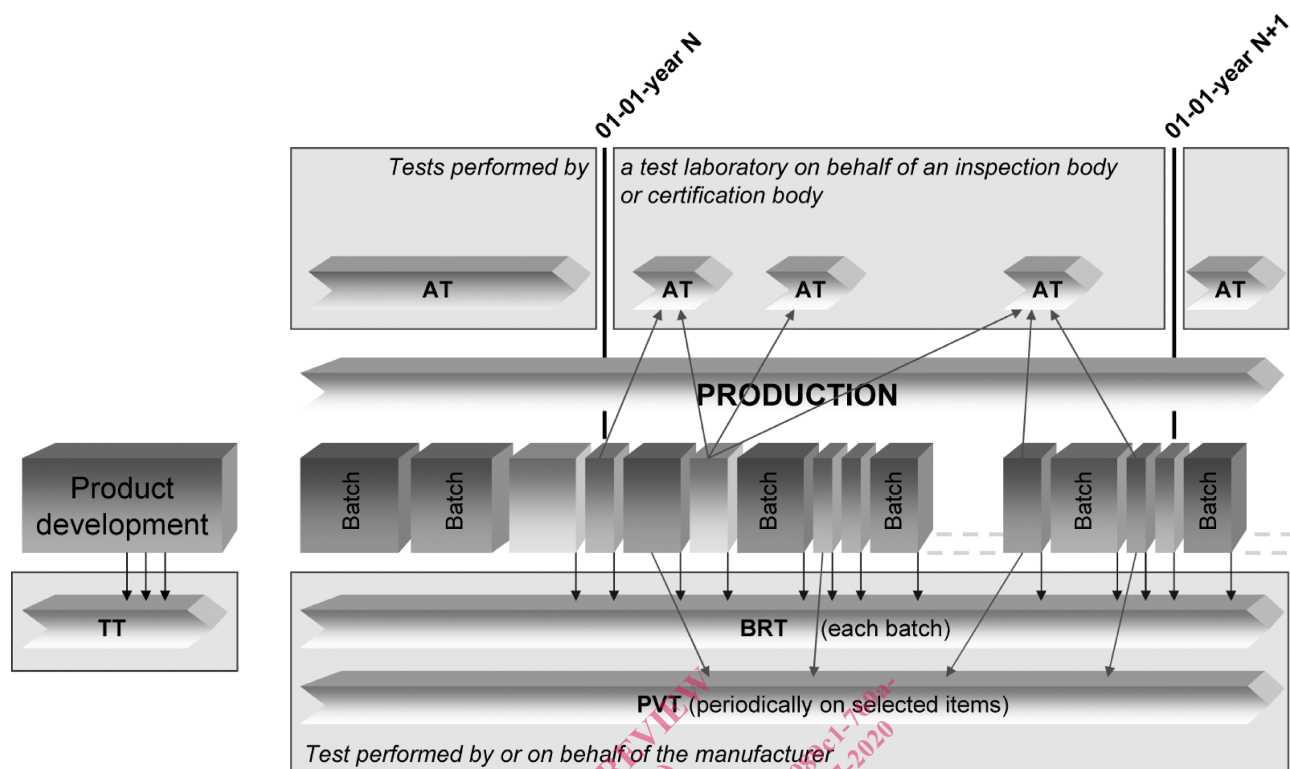


Figure 2 — Typical scheme for the assessment of conformity by a manufacturer, including a certification

FprCEN/TS 17176-7:2020 (E)

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 to 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, *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 1: General*

EN 17176-2, *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 2: Pipes*

CEN/TS 17176-3, *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 2: Fittings*

EN 17176-5, *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 <http://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

Note 1 to entry: An 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 17176, the materials and products can be subject 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

[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 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

FprCEN/TS 17176-7:2020 (E)

Note 1 to entry: Such tests are not required to release batches of formulation/compound 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 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

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/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