SLOVENSKI STANDARD
SIST-TS CEN/TS 13598-3:2012

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Cevni sistemi iz polimernih materialov za odpadno vodo in kanalizacijo, ki delujejo po težnostnem principu in so položeni v zemljo - Nemehčan polivinilklorid (PVC-U), polipropilen (PP) in polietilen (PE) - 3. del: Navodilo za ugotavljanje skladnosti

Plastics piping systems for non-pressure underground drainage and sewerage - Unplasticized poly(vinyl chloride)(PVC-U), polypropylene (PP) and polyethylene (PE) - Part 3: Guidance for assessment of conformity

Kunststoff-Rohrleitungssysteme für erdverlegte drucklose Abwasserkanäle und -leitungen - Zusatzprodukte einschließlich Kontrollschächte und Einsteigschächte aus weichmacherfreiem Polyvinylchlorid (PVC-U), Polypropylen (PP) und Polyethylen (PE) - Teil 3: Empfehlungen für die Beurteilung der Konformität

Systèmes de canalisations en plastique pour les branchements et les collecteurs d'assainissement enterrés sans pression - Poly(chlorure de vinyle) non plastifié (PVC-U), polypropylène (PP) et polyéthylène (PE) - Partie 3: Guide pour l'évaluation de la conformité

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Plastics piping systems for non-pressure underground drainage and sewerage - Unplasticized poly(vinyl chloride)(PVC-U), polypropylene (PP) and polyethylene (PE) - Part 3: Guidance for assessment of conformity

Systèmes de canalisations en plastique pour les branchements et les collecteurs d'assainissement enterrés sans pression - Poly(chlorure de vinyle) non plastifié (PVC-U), polypropylène (PP) et polyéthylène (PE) - Partie 3: Guide pour l'évaluation de la conformité

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This Technical Specification (CEN/TS) was approved by CEN on 14 February 2012 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.

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Foreword

This document (CEN/TS 13598-3:2012) 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 [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

EN 13598, *Plastics piping systems for non-pressure underground drainage and sewerage — Unplasticized poly(vinyl chloride)(PVC-U), polypropylene (PP) and polyethylene (PE)* is composed of the three following parts:

— *Part 1: Specifications for ancillary fittings including shallow inspection chambers*;

— *Part 2: Specifications for manholes and inspection chambers in traffic areas and deep underground installations*;

— *Part 3: Guidance for assessment of conformity* (CEN/TS) (the present 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, Romania, 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 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 document details the applicable characteristics to be assessed and the frequency and sampling of testing.

A typical scheme for the assessment of conformity of compounds, products and assemblies by manufacturers is given in Figure 1.

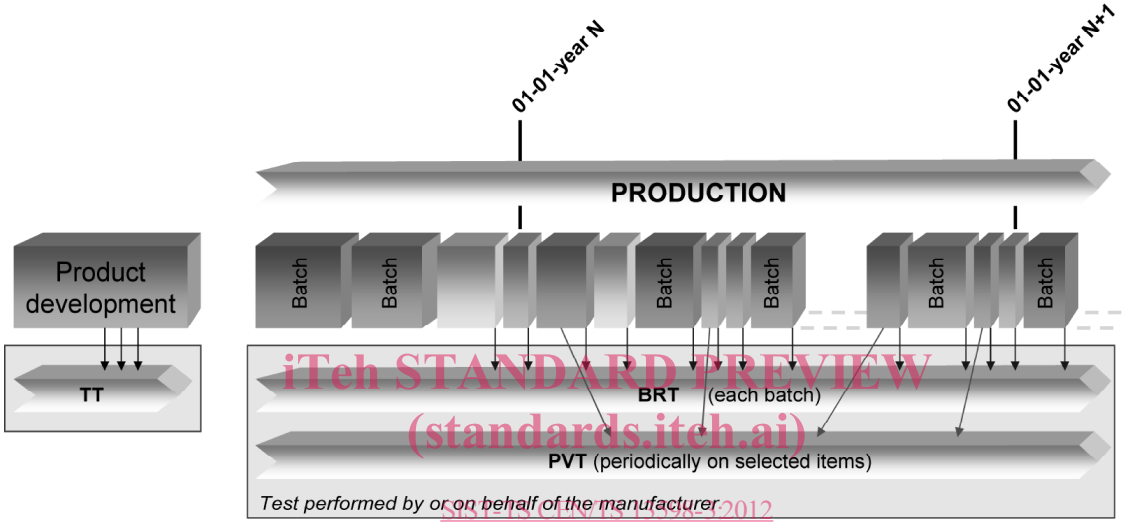

Figure 1 — Typical scheme for the assessment of conformity by a manufacturer

A typical scheme for the assessment of conformity of *compounds, formulations*, pipes, fittings, or assemblies by manufacturers, is given in Figure 2.

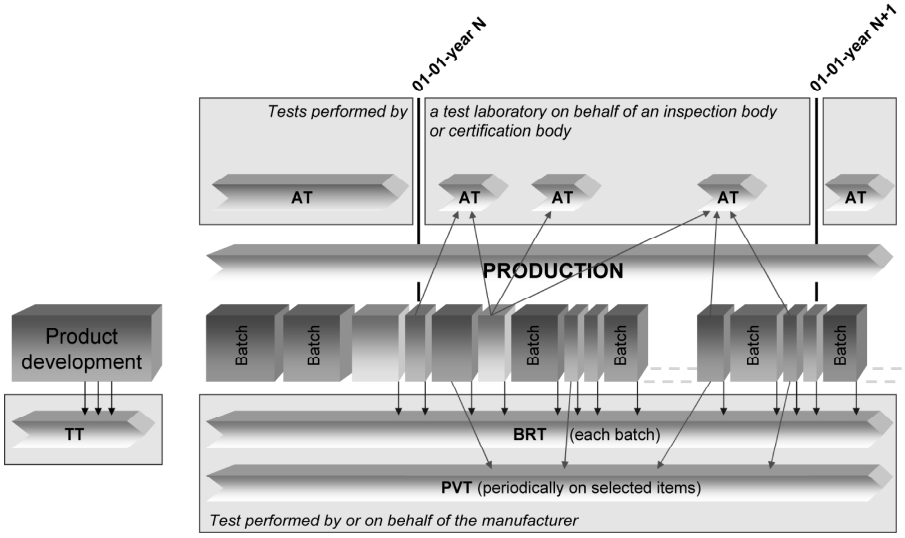

Figure 2 — Typical scheme for the assessment of conformity by a manufacturer

1 Scope

This Technical Specification gives guidance for the assessment of conformity of compounds/formulations, products and assemblies in accordance with Parts 1 and 2 of EN 13598 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 Annexes A and B.

In conjunction with EN 13598- 1 and -2, this Technical Specification is applicable to ancillary underground drainage fittings including manholes and inspection chambers:

— for non-pressure underground drainage and sewerage outside the building structure (application area code "U"), reflected in the marking of products by "U", and

— for non-pressure underground drainage and sewerage for both buried in ground within the building structure (application area code "D") and outside the building structure (application area code "U"), reflected in the marking of products by "UD".

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 1401-1:2009, *Plastics piping systems for non-pressure underground drainage and sewerage — Unplasticized poly(vinyl chloride) (PVC-U) — Part 1: Specifications for pipes, fittings and the system*

EN 13598-1:2010, *Plastics piping systems for non-pressure underground drainage and sewerage — Unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE) — Part 1: Specifications for ancillary fittings including shallow inspection chambers*

EN 13598-2:2009, *Plastics piping systems for non-pressure underground drainage and sewerage — Unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE) — Part 2: Specifications for manholes and inspection chambers in traffic areas and deep underground installations*

ISO 3951-1, *Sampling procedures for inspections by variables — Part 1: Specification for single sampling plans indexed by acceptance quality limit (AQL) for lot-by-lot inspection for a single quality characteristic and a single AQL*

3 Terms and definitions

For the purposes of this document, the following terms and definitions given in EN 13598-1:2010 and EN 13598-2:2009 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 compliant with EN ISO/IEC 17021 [4], 3.2.

3.2
inspection body
body that performs inspection

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

[SOURCE: EN ISO/IEC 17020:2004 [5], 2.2]

Note 2 to entry: A inspection body is preferably compliant with EN ISO/IEC 17020:2004 [5], 3.3.

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 13598, the compounds / formulations and products can be subjected to type testing, batch release testing, process verification testing, audit testing and/or witness testing, as applicable.

Note 2 to entry: A testing laboratory is preferably compliant with EN ISO/IEC 17025 [6].

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

[SOURCE: EN ISO 9000:2005 [7], 3.2.3]

Note 1 to entry: An example of a quality management system is 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 verify 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 product batch, 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 products and assemblies at specific intervals to confirm that type test originally performed on these products and assemblies continue to be valid and 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 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 *compound,* product, and *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 test specified

3.11
witness test
WT
testing 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
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, i.e. anti-oxidants, pigments, stabilisers and others, at a dosage level necessary for the processing and the intended use of the final product

3.14
material batch
clearly identified quantity of a given homogeneous *compound* manufactured under uniform conditions and defined and identified by the compound/formulation manufacturer

3.15
product
underground ancillary fittings and components intended to provide a means of access to the drainage system of a clearly identified type as specified in Parts 1 and 2 intended to be a part of a the drainage system

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 product batch is defined and identified by the product manufacturer.

3.17
lot
clearly identifiable sub-division of a batch for inspection purposes

3.18
sample
one or more products drawn from the same production batch or lot, selected at random without regard to their quality

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
product manufactured out of a specific 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 component
assembled final product using two or more single parts

3.23
thermoplastics fabricated fitting
fitting produced from pipe and/or from injection-moulded fittings by thermoforming, solvent-cementing or welding

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.

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.

3.26
base type
base of a particular design and which can have different diameter and riser connections

3.27
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.

EXAMPLE In the French language, the abbreviation for the French equivalent of "acceptable quality level" (AQL) is NQA; however for the purposes of this part of EN 13598 (CEN/TS 13598-3), the abbreviation of the English term (AQL) is adopted.

	EN	FR	DE
AQL	acceptance quality limit	niveau de qualité acceptable	annehmbare Qualitätsgrenzlage
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 Materials, compounds/formulation, products, and assemblies shall conform to the requirements given in EN 13598-1 and -2.

5.2 Products shall be produced by the manufacturer under a quality management system which includes a quality plan (including specifications on joints and assemblies).

It is recommended that the quality management system conforms to or is no less stringent than the relevant requirements to EN ISO 9001 [1].

6 Testing and inspection

6.1 Material specification of PVC-U

For the purposes of this Document, the material specification consists of a formulation which defines types of PVC and additives and their dosage levels.

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

The manufacturers own rework material of known compound from his own production shall be allowed without limitation.

The use of external reformulated, reprocessable and/or recyclable material with agreed specification shall be considered as a change in formulation when the change in addition exceeds the tolerance bands given in Table 2.

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