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CEN ISO/TS 22391-7

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English Version

Plastics piping systems for hot and cold water installations - Polyethylene of raised temperature resistance (PE-RT) - Part 7: Guidance for the assessment of conformity (ISO/TS 22391-7:2011)

Systèmes de canalisations en plastique pour les installations d'eau chaude et froide - Polyéthylène de meilleure résistance à la température (PE-RT) - Partie 7: Guide pour l'évaluation de la conformité (ISO/TS 22391-7:2011)

Kunststoff-Rohrleitungssysteme für die Warm- und Kaltwasserinstallation - Polyethylen erhöhter Temperaturbeständigkeit (PE-RT) - Teil 7: Empfehlungen für die Beurteilung der Konformität (ISO/TS 22391-7:2011)

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Foreword

This document (CEN ISO/TS 22391-7:2011) has been prepared by Technical Committee CEN/TC 155 “Plastics piping systems and ducting systems", the secretariat of which is held by NEN, in collaboration with Technical Committee ISO/TC 138 "Plastics pipes, fittings and valves for the transport of fluids".

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Introduction

At the date of publication of this part of ISO 22391, System Standards for piping systems of other plastics materials used for the same application are the following:

ISO 15874 (all parts), *Plastics piping systems for hot and cold water installations — Polypropylene (PP)*

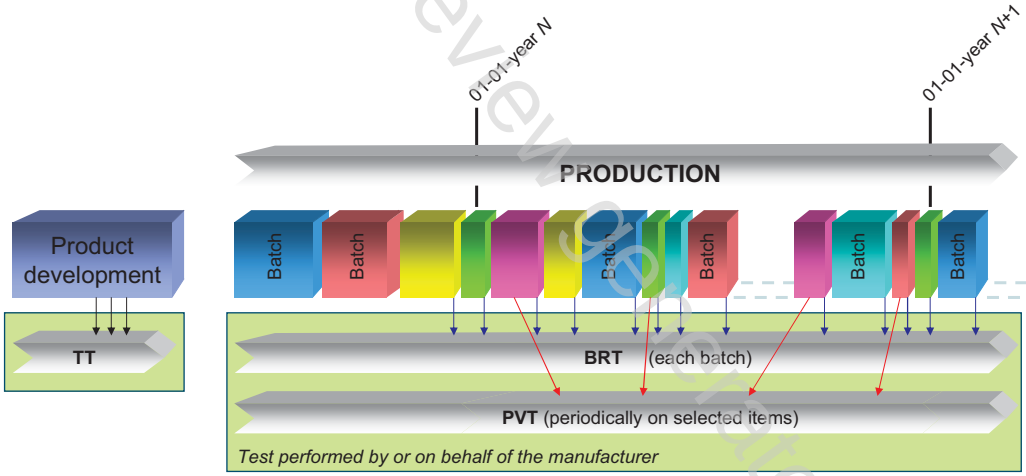
ISO 15875 (all parts), *Plastics piping systems for hot and cold water installations — Crosslinked polyethylene (PE-X)*

ISO 15876 (all parts), *Plastics piping systems for hot and cold water installations — Polybutylene (PB)*

ISO 15877 (all parts), *Plastics piping systems for hot and cold water installations — Chlorinated poly(vinyl chloride) (PVC-C)*

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 kind of test, i.e. type test (TT), batch release test (BRT), process verification test (PVT), and audit test (AT), this part of ISO 22391 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 pipes, fittings or assemblies by manufacturers is given in Figure 1.

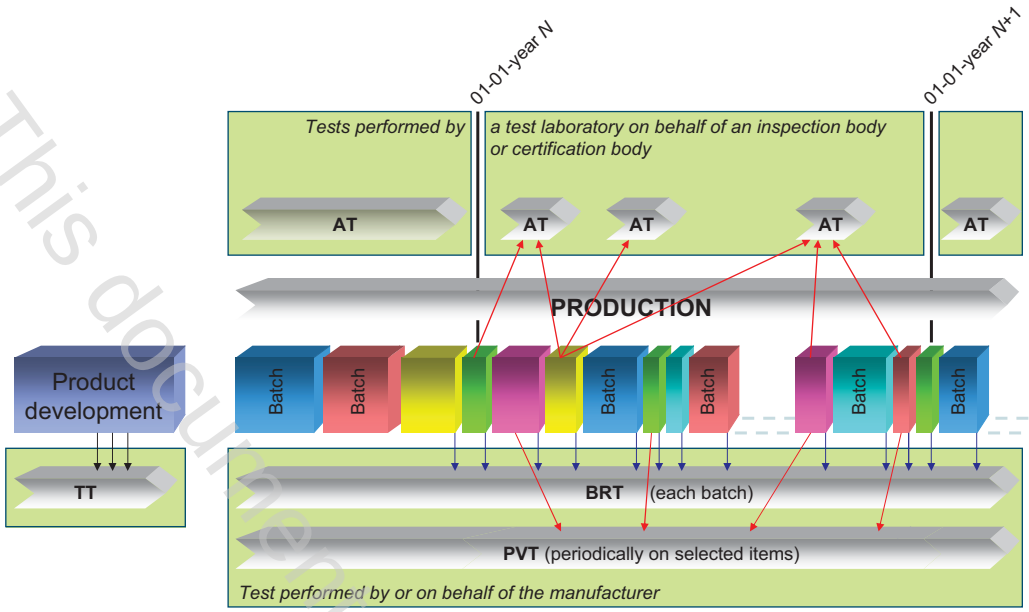


Key

BRT batch release test
PVT process verification test
TT type testing

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

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



Key

AT audit test
BRT batch release test
PVT process verification test
TT type testing

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

This part of ISO 22391 specifies the requirements for a piping system when made from polyethylene (PE-RT). The piping system is intended to be used for hot and cold water installations and heating system installations.

See the foreword for a complete listing of all available parts of ISO 22391.

This part of ISO 22391 gives guidance for the assessment of conformity of materials, components, joints, and assemblies. It is intended for use by certification bodies, inspection bodies, testing laboratories, and manufacturers.

Plastics piping systems for hot and cold water installations — Polyethylene of raised temperature resistance (PE-RT) —

Part 7: Guidance for the assessment of conformity

1 Scope

This part of ISO 22391 gives guidance on the assessment of conformity of products and assemblies in accordance with other applicable part(s) of ISO 22391 intended to be included in the manufacturer's quality plan as part of the quality management system and for the establishment of certification procedures.

In conjunction with the other parts, this part of ISO 22391 is applicable to hot and cold water installations within buildings for the conveyance of water, whether or not intended for human consumption (domestic systems), under design pressures and temperatures appropriate to the class of application.

2 Normative references

The following referenced documents are indispensable for the application 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.

ISO 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

ISO 3951-1, *Sampling procedures for inspection 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*

ISO 3951-2, *Sampling procedures for inspection by variables — Part 2: General specification for single sampling plans indexed by acceptance quality limit (AQL) for lot-by-lot inspection of independent quality characteristics*

ISO 3951-3, *Sampling procedures for inspection by variables — Part 3: Double sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

ISO 3951-5, *Sampling procedures for inspection by variables — Part 5: Sequential sampling plans indexed by acceptance quality limit (AQL) for inspection by variables (known standard deviation)*

ISO 22391-1:2009, *Plastics piping systems for hot and cold water installations — Polyethylene of raised temperature resistance (PE-RT) — Part 1: General*

ISO 22391-2:2009, *Plastics piping systems for hot and cold water installations — Polyethylene of raised temperature resistance (PE-RT) — Part 2: Pipes*

ISO 22391-3:2009, *Plastics piping systems for hot and cold water installations — Polyethylene of raised temperature resistance (PE-RT) — Part 3: Fittings*

ISO 22391-5:2009, *Plastics piping systems for hot and cold water installations — Polyethylene of raised temperature resistance (PE-RT) — Part 5: Fitness for purpose of the system*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 22391-1, ISO 22391-2, ISO 22391-3 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 A certification body is preferably compliant with ISO/IEC 17021[5].

3.2
inspection body
body, that performs inspection

NOTE 1 A body can be an organization, or part of an organization.

[ISO/IEC 17020:1998[4], 2.2]

NOTE 2 An inspection body is preferably compliant with 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 In the context of this part of ISO/TS 22391, 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 A testing laboratory is preferably compliant with ISO/IEC 17025[6].

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

[ISO 9000:2005[2], 3.2.3]

NOTE Requirements for quality management systems are given in ISO 9001[3].

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, component, joint or assembly is capable of conforming to the requirements given in the relevant standard

NOTE The type test results remain valid until there is a change in the material or product or assembly provided that process verification tests are done regularly.