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Standards

Standard Recommendation  
S.R. CEN/TS 14632:2012

Plastics piping systems for drainage, sewerage and water supply, pressure and non-pressure - Glass-reinforced thermosetting plastics (GRP) based on unsaturated polyester resin (UP) - Guidance for the assessment of conformity

## S.R. CEN/TS 14632:2012

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English Version

**Plastics piping systems for drainage, sewerage and water supply, pressure and non-pressure - Glass-reinforced thermosetting plastics (GRP) based on unsaturated polyester resin (UP) - Guidance for the assessment of conformity**

Systèmes de canalisations en plastique pour les branchements, les collecteurs d'assainissement et l'alimentation en eau, avec ou sans pression - Plastiques thermodurcissables renforcés de verre (PRV) à base de résine polyester (UP) - Guide pour l'évaluation de conformité

Kunststoff-Rohrleitungssysteme für die Entwässerung und Wasserversorgung mit und ohne Druck - Glasfaserverstärkte duroplastische Kunststoffe (GFK) auf der Basis von ungesättigtem Polyesterharz (UP) - Empfehlungen für die Beurteilung der Konformität

This Technical Specification (CEN/TS) was approved by CEN on 20 September 2011 for provisional application.

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## **Foreword**

This document (CEN/TS 14632:2012) 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.

This document supersedes CEN/TS 14632:2006.

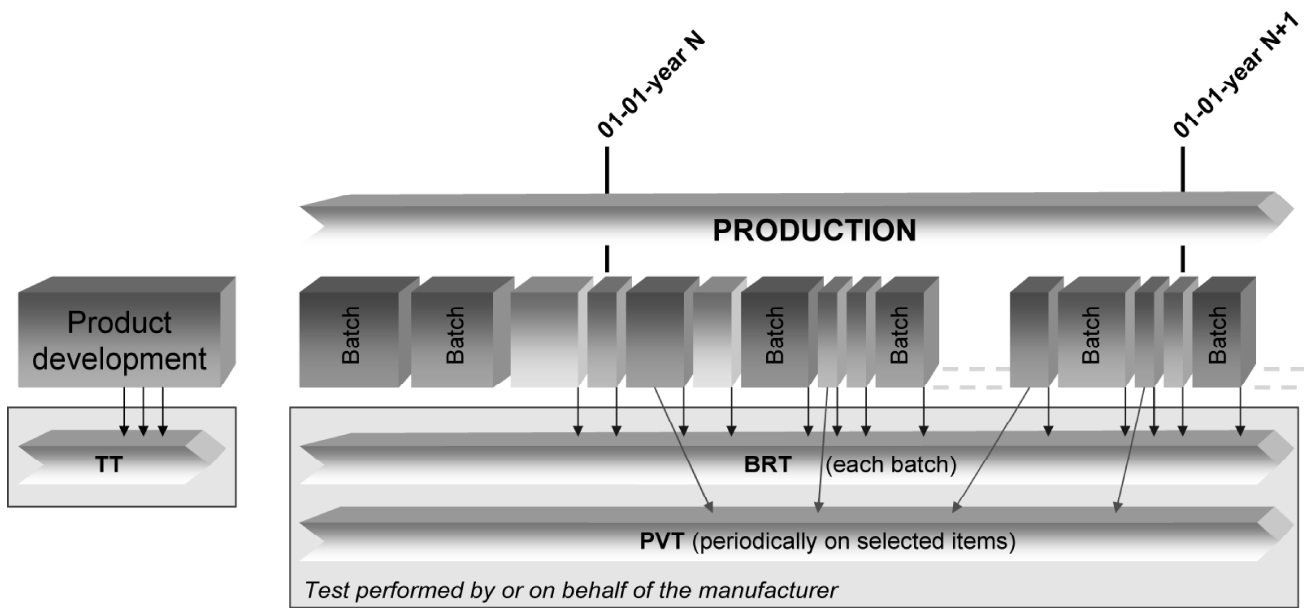
This Technical Specification can be used to support elaboration of national third party certification procedures for GRP products (glass-reinforced thermosetting plastics based on unsaturated polyester resin) to be used in piping systems for the transport of water, drainage and sewage.

According to the CEN/CENELEC Internal Regulations, the national standards organizations 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 test (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 pipes, fittings 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 pipes, fittings and assemblies by manufacturers, including a third-party certification, is given in Figure 2.

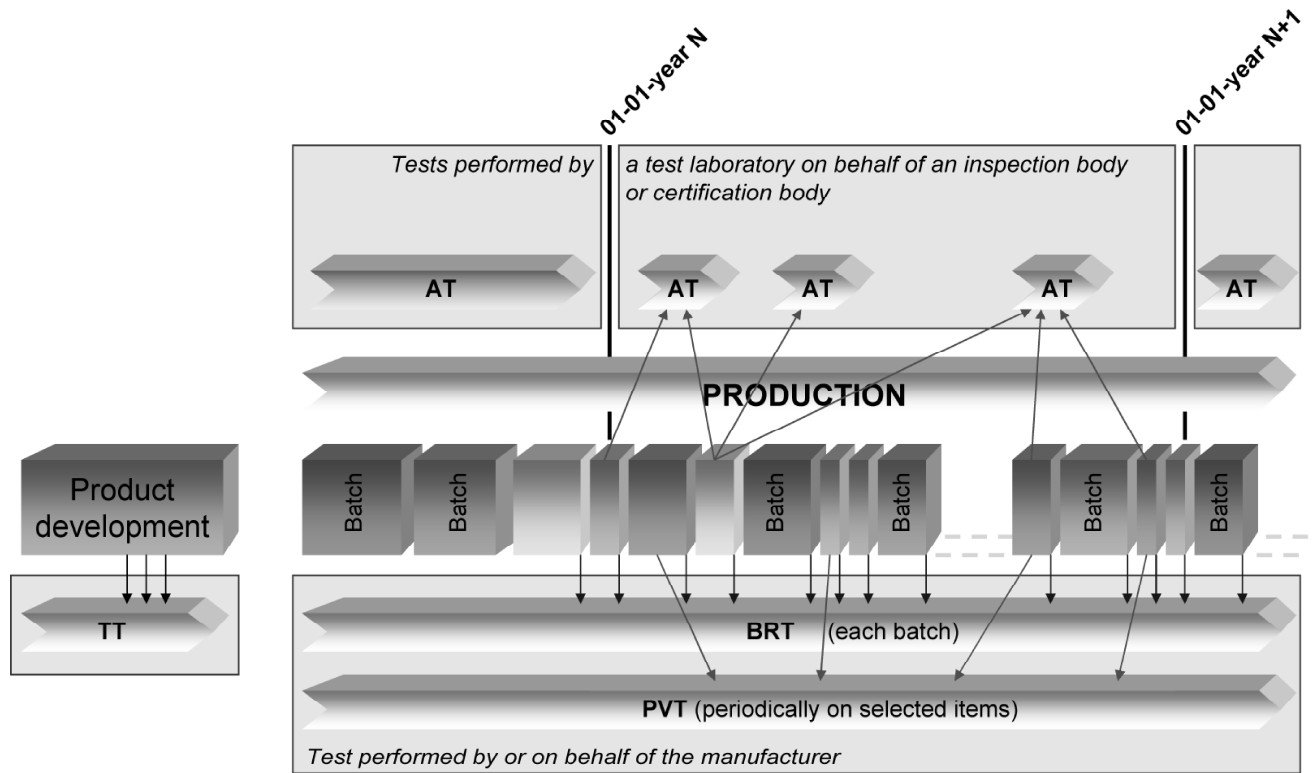


Figure 2 — Typical scheme for the assessment of conformity by a manufacturer, including a third-party certification

## 1 Scope

This Technical Specification gives guidance on the assessment of conformity of GRP-UP (glass-reinforced thermosetting resins based on unsaturated polyesters) piping products and assemblies in accordance with EN 1796 and EN 14364 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.

This Technical Specification also gives guidance on the assessment of conformity of GRP-UP manholes and inspection chambers in accordance with prEN 15383. Pipes according to EN 14364 are used for manufacturing the shafts and chamber units. Additional statements as needed to assess the conformity of manholes and inspection chambers are given in Annex F.

NOTE 1 It is recommended that the quality management system conforms to or is no less stringent than the relevant requirements to EN ISO 9001 [3].

NOTE 2 If third-party certification is involved, it is recommended that the certification body is accredited to EN 45011 [1], EN 45012 [2] or EN ISO/IEC 17021 [5], as applicable.

## 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 681-1, *Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 1: Vulcanized rubber*

EN 978:1997, *Underground tanks of glass-reinforced plastics (GRP) — Determination of factor alpha and factor beta*

EN 1119, *Plastics piping systems — Joints for glass-reinforced thermosetting plastics (GRP) pipes and fittings — Test methods for leaktightness and resistance to damage of non-thrust resistant flexible joints with elastomeric sealing elements*

EN 1447, *Plastics piping systems — Glass-reinforced thermosetting plastics (GRP) pipes — Determination of long-term resistance to internal pressure*

EN 1796:2006+A1:2008, *Plastics piping systems for water supply with or without pressure — Glass-reinforced thermosetting plastics (GRP) based on unsaturated polyester resin (UP)*

EN 14364:2006+A1:2008, *Plastics piping systems for drainage and sewerage with or without pressure — Glass-reinforced thermosetting plastics (GRP) based on unsaturated polyester resin (UP) — Specifications for pipes, fittings and joints*

prEN 15383:2010, *Plastics piping systems for drainage and sewerage — Glass-reinforced thermosetting plastics (GRP) based on polyester resin (UP) — Manholes and inspection chambers*

EN ISO 3126, *Plastics piping systems — Plastics components — Determination of dimensions (ISO 3126)*

ISO 7432, *Glass-reinforced thermosetting plastics (GRP) pipes and fittings — Test methods to prove the design of locked socket-and-spigot joints, including double-socket joints, with elastomeric seals*

ISO 7510, *Plastics piping systems — Glass-reinforced plastics (GRP) components — Determination of the amounts of constituents using the gravimetric method*



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