

Plastics piping systems for water supply — Polyethylene (PE) —

Part 7: Guidance for the assessment of conformity

ICS 23.040.20; 91.140.60

National foreword

This Draft for Development (DD) is the official English version of CEN/TS 12201-7:2003. No existing British Standard will be superseded by the implementation of CEN/TS 12201-7:2003.

The UK participation in its preparation was entrusted by Technical Committee PRI/88, (previously PRI/61), Plastics piping systems to Subcommittee PRI/88/2, (previously PRI/61/2), Plastics piping systems for pressure applications, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

Attention is drawn to any appropriate safety precautions. It is assumed in the drafting of a standard that the execution of its provisions is entrusted to appropriately qualified people.

Additional information

As yet, there is no pan-European agreement on water quality requirements, so existing UK regulations remain in force. Regulation 25 of the Water Supply (Water Quality) Regulations 1989 specifies the circumstances in which water undertakers may use products in contact with water supplies in England and Wales. As part of the UK regulations, all pipes and fittings used to convey drinking water supplies are required to be approved under the provisions of Regulation 25(1) (a) or (b) as appropriate and the Water Regulation Advisory Scheme (WRAS) to ensure that their use will not cause adverse effect on water quality or a risk to health of consumers. In Scotland and Northern Ireland there are similar provisions. These regulations will be revised as necessary to comply with the EU Drinking Water Quality Directive.

The UK National Annex NA attached to this Standard provides additional information on the selection and installation of piping systems and components in the UK.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 29 January 2004

Amendments issued since publication

Amd. No.	Date	Comments

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Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Attention is drawn to the following statutory regulations:

Health and Safety at Work etc. Act 1974 and subsequent regulations.

This publication is not to be regarded as a British Standard.

It is being issued in the Draft for Development series of publications and is of a provisional nature because this is not a full European standard and under CEN rules member bodies have only to announce that it is available; however, the DD documents are an accepted means of announcing that the CEN/TS is available. It should be applied on this provisional basis, so that information and experience of its practical application may be obtained.

Comments arising from the use of this Draft for Development are requested so that UK experience can be reported to the European organization responsible for its conversion to a European standard. A review of this publication will be initiated 2 years after its publication by the European organization so that a decision can be taken on its status at the end of its 3-year life. Notification of the start of the review period will be made in an announcement in the appropriate issue of Update Standards.

According to the replies received by the end of the review period, the responsible BSI Committee will decide whether to support the conversion into a European standard, to extend the life of the Technical Specification or to withdraw it. Comments should be sent in writing to the Secretary of BSI Technical Committee PRI/88/2 at British Standards House, 389 Chiswick High Road, London W4 4AL, giving the document reference and clause number and proposing, where possible, an appropriate revision of the text.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, page i and ii, the EN title page, pages 2 to 27 and a back cover.

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English version

**Plastics piping systems for water supply - Polyethylene (PE) -
Part 7: Guidance for the assessment of conformity**

Systèmes de canalisations en plastiques pour
l'alimentation en eau – Polyéthylène (PE) - Partie 7: Guide
pour l'évaluation de la conformité

Kunststoff-Rohrleitungssysteme für die Wasserversorgung
– Polyethylen (PE) – Teil 7 : Empfehlungen für die
Beurteilung der Konformität

This Technical Specification (CEN/TS) was approved by CEN on 9 February 2003 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. 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.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



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Foreword

This document CEN/TS 12201-7:2003 has been prepared by Technical Committee CEN /TC 155, "Plastics piping systems and ducting systems", the secretariat of which is held by NEN.

This Technical Specification can be used to support the elaboration of national third party certification procedures for products conforming to the applicable Parts of EN 12201.

This Technical Specification is a Part of a System Standard for plastics piping systems of a particular material for a specified application. There are a number of such System Standards.

System Standards are based on the results of the work being undertaken in ISO/TC 138 "*Plastics pipes, fittings and valves for the transport of fluids*", which is a Technical Committee of the International Organization for Standardization (ISO).

They are supported by separate standards on test methods to which references are made throughout the System Standard.

The System Standards are consistent with standards on general functional requirements and standards on recommended practice for installation.

EN 12201 consists of the following Parts, under the general title "*Plastics piping systems for water supply — Polyethylene (PE)*".

- *Part 1: General*
- *Part 2: Pipes*
- *Part 3: Fittings*
- *Part 4: Valves*
- *Part 5: Fitness for purpose of the system*
- *Part 7: Guidance for the assessment of conformity* (this Technical Specification)

NOTE It was decided not to publish a Part 6: Recommended practice for installation. Instead, existing national installation practices would be applicable.

This Part of EN 12201 includes the following:

- *Annex A (Normative) Change of PE compound*
- *Annex B (Normative) Change of design*
- *Bibliography*

System Standards for piping systems of other plastics materials used for the conveyance of water under pressure include the following:

EN 1452, *Plastics piping systems for water supply — Unplasticized poly(vinyl chloride) (PVC-U)*

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

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this CEN Technical Specification : Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

The System Standard, of which this is Part 7, specifies the requirements for a piping system and its components made from polyethylene (PE), intended to be used for water supply intended for human consumption including the conveyance of raw water prior to treatment.

In respect of potential adverse effects on the quality of water intended for human consumption, caused by the product covered by this Technical Specification:

- 1) This Technical Specification provides no information as to whether the product may be used without restriction in any Member States of the EU or EFTA;
- 2) It should be noted that, while awaiting adoption of verifiable European criteria, existing national regulations concerning the use and/or the characteristics of this product remain in force.

This Part of EN 12201 gives guidance for the procedures and requirements for the assessment of conformity of materials, components, joints and assemblies and is intended to be used by certification bodies, inspection bodies, testing laboratories and manufacturers.

1 Scope

This Part of EN 12201 gives guidance for the assessment of conformity to be included in the manufacturer's quality plan as part of his quality system.

This Technical Specification includes:

- a) requirements for materials, components, joints and assemblies given in Parts 1 to 5 of EN 12201;
- b) requirements for the manufacturer's quality system;

NOTE 1 It is recommended that the quality system conforms to EN ISO 9001:2000 ^[1]

- c) definitions and procedures to be applied if third party certification is involved.

NOTE 2 If third party certification is involved, it is recommended that the certification body is accredited to EN 45011^[2] or EN 45012^[3], as applicable.

In conjunction with one or more Parts of EN 12201 (see Foreword) it is applicable to polyethylene (PE) piping systems intended to be used for water supply intended for human consumption including the conveyance of raw water prior to treatment.

2 Normative references

This Technical Specification incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this Technical Specification only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 12201-1:2003, *Plastics piping systems for water supply — Polyethylene (PE) — Part 1: General.*

EN 12201-2:2003, *Plastics piping systems for water supply — Polyethylene (PE) — Part 2: Pipes.*

EN 12201-3:2003, *Plastics piping systems for water supply — Polyethylene (PE) — Part 3: Fittings.*

EN 12201-4:2001, *Plastics piping systems for water supply — Polyethylene (PE) — Part 4: Valves.*

EN 12201-5:2003, *Plastics piping systems for water supply — Polyethylene (PE) — Part 5: Fitness for purpose of the system.*

EN ISO 6259-1:2001, *Thermoplastics pipes ¾ Determination of tensile properties ¾ Part 1: General test method (ISO 6259-1:1997).*

EN ISO 12162:1995, *Thermoplastics materials for pipes and fittings for pressure applications — Classification and designation — Overall service (design) coefficient (ISO 12162:1995).*

ISO 2859-1:1999, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection.*

ISO 3951:1989, *Sampling procedures and charts for inspection by variables for percent nonconforming.*

ISO 6259-3:1997, *Thermoplastics pipes ¾ Determination of tensile properties ¾ Part 3: Polyolefin pipes.*

ISO 13954:1997, *Plastics pipes and fittings — Peel decohesion test for polyethylene (PE) electrofusion assemblies of nominal outside diameter greater than or equal to 90 mm.*

ISO 13955:1997, *Plastics pipes and fittings — Crushing decohesion test for polyethylene (PE) electrofusion assemblies.*

ISO/DIS 13956:1996, *Plastics pipes and fittings — Determination of cohesive strength — Tear test for polyethylene (PE) assemblies.*

3 Terms, definitions, symbols and abbreviations

For the purposes of this Technical Specification the terms, definitions, symbols and abbreviations given in Part 1 and Part 3 to Part 5 of EN 12201, apply together with the following.

3.1 Terms and definitions

3.1.1

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

3.1.2

inspection body

impartial organisation or company, approved by a 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 European Standard

3.1.3

testing laboratory

laboratory which measures, tests, calibrates or otherwise determines the characteristics of the performance of materials and products

3.1.4

quality management system

organisational structure, responsibilities, procedures, processes and resources for implementing quality management (see EN ISO 9000^[4])

3.1.5

quality management plan

document setting out the specific quality practices, resources and sequence of activities relevant to a particular product or range of products

3.1.6

type testing (TT)

tests performed to prove that the material, component, joint or assembly is capable of conforming to the requirements given in the relevant standard

3.1.7

preliminary type testing (PTT)

type testing carried out by, or on behalf of, the manufacturer

3.1.8

initial type testing (ITT)

type testing carried out by, or on behalf of, a certification body for certification purposes

3.1.9

batch release test (BRT)

test performed by the manufacturer on a batch of components, which has to be satisfactorily completed before that batch can be released

3.1.10

process verification test (PVT)

test performed by the manufacturer on materials, components, joints or assemblies at specific intervals to confirm that the process continues to be capable of producing components conforming to the requirements given in the relevant standard

NOTE Such tests are not required to release batches of components and are carried out as a measure of process control.