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Kunststofleidingssystemen voor de drinkwatervoorziening - Ongeplasticeerd polyvinylchloride (PVC-U) - Deel 5 : Geschiktheid voor de toepassing van het systeem

Systèmes de canalisations en plastique pour alimentation en eau - Poly(chlorure de vinyle) non plastifié (PVC-U) - Partie 5: Aptitude à l'emploi du système

Plastics piping systems for water supply - Unplasticized poly(vinyl chloride) (PVC-U) - Part 5: Fitness for purpose of the system

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Deze Europese norm EN 1452-5: 1999 heeft de status van een Belgische norm.

Deze Europese norm bestaat in drie officiële versies (Duits, Engels, Frans).

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Kunststoff-Rohrleitungssysteme für die Wasserversorgung - Weichmacherfreies Polyvinylchlorid (PVC-U) - Teil 5: Gebrauchstauglichkeit des Systems

This European Standard was approved by CEN on 2 July 1998.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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Contents

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 155 "Plastics piping systems and ducting systems", the secretariat of which is held by NNI**.** It has been prepared with the cooperation of Eureau and in liaison with CEN/TC 164 "Water supply".

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by december 1999, and conflicting national standards shall be withdrawn at the latest by June 2001.

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

This standard 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 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 general standards on functional requirements and on recommended practice for installation.

EN 1452 consists of the following Parts, under the general title *Plastics piping systems for water supply – Unplasticized poly(vinyl chloride) (PVC-U)*

- *Part 1: General*
- *Part 2: Pipes*
- *Part 3: Fittings*
- *Part 4: Valves and ancillary equipment*
- *Part 5: Fitness for purpose of the system (this standard)*
- *Part 6: Guide for installation (ENV)*
- *Part 7: Guide for assessment of conformity (ENV).*

This Part of EN 1452 includes the following annexes:

- Annex A (normative): Assemblies of imperial(inch)-sized pipes, fittings, valves and ancillaries
- Annex B (informative): Determination of the long-term test pressure by creep consideration
- Annex C (informative): Bibliography.

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

NOTE All listed System Standards have reached the CEN enquiry stage or are under preparation.

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

prEN 12201, *Plastics piping systems for water supply – Polyethylene (PE)*

Introduction

The System Standard, of which this is Part 5, specifies the requirements for a piping system and its components when made from unplasticized poly(vinyl chloride) (PVC-U). The piping system is intended to be used for water supply.

For materials and components, requirements and test methods are specified in Parts 1, 2, 3 and 4 of EN 1452. Guidance for installation is given in ENV 1452-6. ENV 1452-7 covers the requirements for assessment of conformity.

This Part of EN 1452 covers the characteristics of fitness for purpose of the plastics piping system composed of pipes, fittings, valves, ancillaries and their joints.

1 Scope

This Part of EN 1452 specifies the characteristics for the fitness for purpose of unplasticized poly(vinyl chloride) (PVC-U) piping systems in the field of water supply.

It also specifies the test parameters for the test methods referred to in this standard.

In conjunction with Parts 1 to 4 of EN 1452, ENV 1452-6 and ENV 1452-7 it is applicable to joints and assemblies with components of PVC-U, other plastics and non-plastics materials intended to be used for the following:

a) water mains and services buried in ground;

b) conveyance of water above ground for both outside and inside buildings,

for the supply of water under pressure at approximately 20 °C (cold water) intended for human consumption and for general purposes.

This standard is also applicable to assemblies for the conveyance of water up to and including 45 °C. For temperatures between 25 °C and 45 °C figure A.1 in annex A of EN 1452-2:1999 applies.

2 Normative references

This Standard 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 Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

prEN 1336 [1)], *Plastics piping systems — End-load bearing and non end-load bearing assemblies and joints for thermoplastics pressure piping — Test method for long-term leaktightness under internal water pressure*

EN 1452-1, *Plastics piping systems for water supply — Unplasticized poly(vinyl chloride) (PVC-U) — Part 1: General*

EN 1452-2:1999, *Plastics piping systems for water supply — Unplasticized poly(vinyl chloride) (PVC-U) — Part 2: Pipes*

EN 1452-3:1999, *Plastics piping systems for water supply — Unplasticized poly(vinyl chloride) (PVC-U) — Part 3: Fittings*

EN 1452-4, *Plastics piping systems for water supply — Unplasticized poly(vinyl chloride) (PVC-U) — Part 4: Valves and ancillary equipment*

ENV 1452-7, *Plastics piping systems for water supply — Unplasticized poly(vinyl chloride) (PVC-U) — Part 7: Assessment of conformity*

EN ISO 13783:1997, *Plastics piping systems — Unplasticized poly(vinyl chloride) (PVC-U) end-load bearing double socket joints — Test method for leaktightness and strength while subjected to bending and internal pressure*

prEN ISO 13844, *Plastics piping systems — Elastomeric sealing ring type socket joints of unplasticized poly(vinyl chloride) (PVC-U) for use with PVC-U pipes — Test method for leaktightness under negative pressure*

prEN ISO 13845, *Plastics piping systems — Elastomeric-sealing-ring-type socket joints for use with unplasticized poly(vinyl chloride) (PVC-U) pipes — Test method for leaktightness under internal pressure and with angular deflection*

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1) Will be published as EN ISO 13846.