
Cevni sistemi iz polimernih materialov za odpadno vodo in kanalizacijo, ki delujejo po težnostnem principu - S steklenimi vlakni okrepljeni duromerni materiali (GRP), ki temeljijo na nenasičeni poliestrski smoli (UP) - 5. del: Ustrežanje zahtevam za uporabnost spojev

Plastics piping systems for non-pressure drainage and sewerage - Glass-reinforced thermosetting plastics (GRP) based on unsaturated polyester resin (UP) - Part 5: Fitness for purpose of the joints

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Kunststoff-Rohrleitungssysteme für drucklose Entwässerungs- und Abwasserleitungen - Glasfaserverstärkte duroplastische Kunststoffe (GFK) auf der Basis von ungesättigtem Polyesterharz (UP) - Teil 5: Gebrauchstauglichkeit der Verbindungen

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Systemes de canalisations en plastique pour l'évacuation et l'assainissement sans pression - Plastiques thermodurcissables renforcés de verre (PRV) a base de résine de polyester non saturé (UP) - Partie 5: Aptitude a l'emploi des assemblages

Ta slovenski standard je istoveten z: EN 1636-5:1997

ICS:

23.040.01	Deli cevodovov in cevodovi na splošno	Pipeline components and pipelines in general
93.030	Zunanji sistemi za odpadno vodo	External sewage systems

SIST EN 1636-5:1999

en

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EUROPEAN STANDARD

EN 1636-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 1997

ICS 23.040.01

Descriptors: plastics, pipe, fitting, underground, drainage, sewerage, non-pressure, glass-reinforced plastics, polyester, thermosetting resins

English version

**Plastics piping systems for non-pressure drainage
and sewerage - Glass-reinforced thermosetting
plastics (GRP) based on unsaturated polyester
resin (UP) - Part 5: Fitness for purpose of the
joints**

istèmes de canalisations en plastique pour
l'évacuation et l'assainissement sans pression
- Plastiques thermodurcissables renforcés de
verre (PRV) à base de résine de polyester non
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This European Standard was approved by CEN on 1997-02-27. 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.

The European Standards exist 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.

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

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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.

This standard is part of a System Standard for plastics piping systems, which is a standard for glass-reinforced polyester plastics piping systems for non-pressure drainage and sewerage.

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.

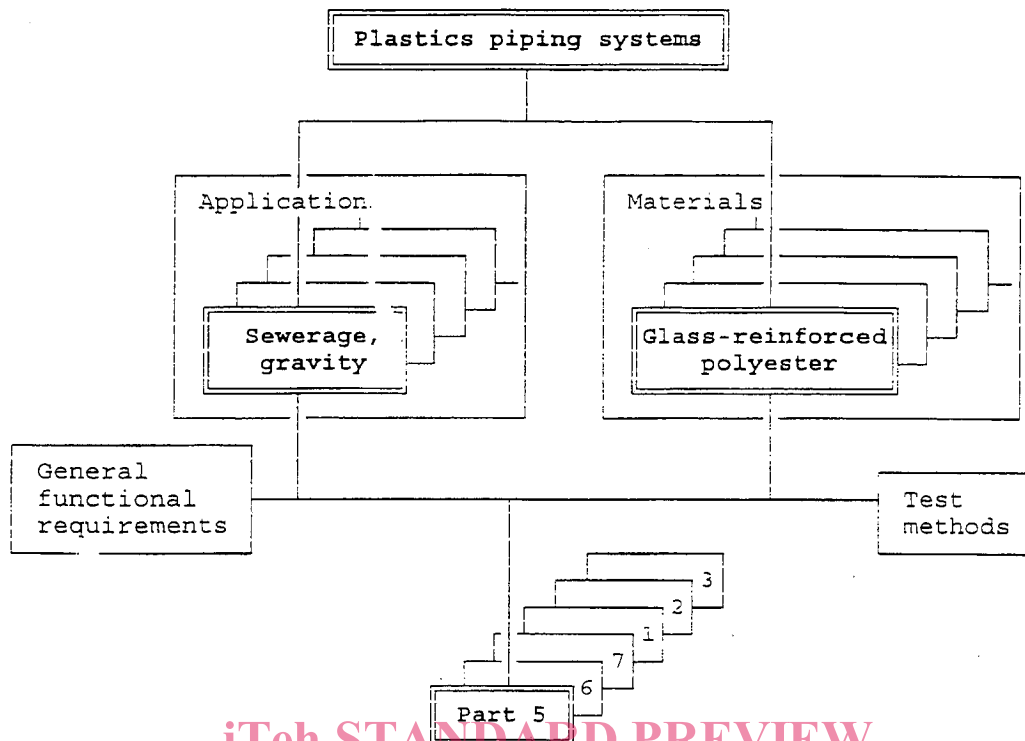
System Standards are consistent with standards on general functional requirements and on practices for installation.

EN 1636 consists of the following parts, under the general title Plastics piping systems for non-pressure drainage and sewerage - Glass-reinforced thermosetting plastics (GRP) based on unsaturated polyester resin (UP)

- iTeh STANDARD PREVIEW**
(standards.iteh.ai)
- Part 1: General
 - Part 2: Pipes with flexible, reduced-articulation or rigid joints
 - Part 3: Fittings <https://standards.iteh.ai/catalog/standards/sist/79c77a24-6a50-4d54-b9f0-64c9d0dd856a/sist-en-1636-5-1999>
 - Part 5: Fitness for purpose of the joints (this standard)
 - Part 6: Practices for installation
 - Part 7: Assessment of conformity



The following diagram indicates the place of this standard within the CEN framework of plastics piping systems:



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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 are under preparation.

- | | |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EN 1401 | <i>Plastics piping systems for non-pressure underground drainage and sewerage - Unplasticized poly(vinyl chloride) (PVC-U)</i> |
| EN 1852 | <i>Plastics piping systems for non-pressure underground drainage and sewerage - Polypropylene (PP)</i> |
| EN [155wi009] | <i>Plastics piping systems for non-pressure underground drainage and sewerage - Structured-wall piping systems of unplasticized poly(vinyl chloride) (PVC-U)</i> |
| EN [155wi010] | <i>Plastics piping systems for non-pressure underground drainage and sewerage - Structured-wall piping systems of polypropylene (PP)</i> |
| EN [155wi011] | <i>Plastics piping systems for non-pressure underground drainage and sewerage - Structured-wall piping systems of polyethylene (PE)</i> |
| EN [155wi012] | <i>Plastics piping systems for non-pressure underground drainage and sewerage - Polyethylene (PE)</i> |

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- EN [155wi015] *Plastics piping systems for agricultural land drainage - Unplasticized poly(vinyl chloride) (PVC)*
- EN [155wi136] *Plastics piping systems for drainage and sewerage with or without pressure - Glass-reinforced thermosetting plastics (GRP) based on epoxy resin (EP)*

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 February 1998, and conflicting national standards shall be withdrawn at the latest by February 1998.

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.

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Introduction

The System Standard, of which this is Part 5, specifies the properties of the piping system and its components made from glass-reinforced thermosetting plastics (GRP) based on unsaturated polyester resin (UP) intended to be used for non-pressure drainage and sewerage. The System Standard includes practices for installation and procedures for assessment of conformity.

In a pipework system, pipes and fittings of different nominal pressure and stiffness ratings may be used together.

A joint may be made between pipes and/or fittings such that its performance is equal to or better than the requirements of the pipeline.

This Part of EN 1636 which covers the characteristics of fitness for purpose of the piping system, is intended to be used by amongst others, end-users, authorities, design engineers, testing and certification institutes and manufacturers.

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1 Scope

This Part of EN 1636 specifies the characteristics of the fitness for purpose of glass-reinforced thermosetting plastics based on unsaturated polyester resin (GRP-UP) piping systems intended to be used for non-pressure drainage and sewerage. It also specifies the relevant test parameters for the test methods referred to in this standard.

It is applicable to the joints to be used in GRP-UP piping systems to be used for the conveyance of surface water or sewage below ground, outside buildings, at temperatures up to 50 °C.

NOTE: Piping systems conforming to EN 1636 can also be used for above-ground applications provided the influence of the environment and the supports is considered in the design of the pipes and joints.

This standard specifies initial performance requirements for the following joints, for use with GRP-UP pipes for buried pipelines or pipework systems, as a function of the declared classification (PN 1) of the pipeline or system:

- a) flexible socket-and-spigot or mechanical joint;
- b) reduced-articulation socket-and-spigot or mechanical joint;
- c) rigid locked socket-and-spigot joint;
- d) cemented socket-and-spigot or butt joint;
- e) bolted flange and threaded joint.

This standard is applicable to joints which are or are not intended to be exposed to end thrust loads in service. It covers requirements to prove the design of the joint.

Tests referred to in this standard are suitable for evaluating joints intended for use at temperatures up to 50 °C and may be applicable for joints for use at higher temperatures. For service temperatures up to and including 50 °C reference is made to the required test temperatures given in EN 1636-1.

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.

- EN 705 Plastics piping systems - Glass-reinforced thermosetting plastics (GRP) pipes and fittings - Methods for regression analyses and their use
- EN 1119 Plastics piping systems - Glass-reinforced thermosetting plastics (GRP) pipes and fittings - Test methods for leaktightness and resistance to damage of flexible and reduced-articulation joints
- EN 1448 Plastics piping systems - Glass-reinforced thermosetting plastics (GRP) pipes and fittings - Test method to prove the design of rigid locked socket-and-spigot joints with elastomeric seals
- EN 1449 Plastics piping systems - Glass-reinforced thermosetting plastics (GRP) pipes and fittings - Test method to prove the design of a cemented socket-and-spigot, including double-socket, joints
- EN 1450 Plastics piping systems - Glass-reinforced thermosetting plastics (GRP) pipes and fittings - Test method to prove the design of bolted flange joints
- EN 1636-1 Plastics piping systems for non-pressure drainage and sewerage - Glass-reinforced thermosetting plastics (GRP) based on unsaturated polyester resin (UP) - Part 1: General
- EN 1636-2 Plastics piping systems for non-pressure drainage and sewerage - Glass-reinforced thermosetting plastics (GRP) based on unsaturated polyester resin (UP) - Part 2: Pipes with flexible, reduced-articulation or rigid joints
- EN 1636-3 Plastics piping systems for non-pressure drainage and sewerage - Glass-reinforced thermosetting plastics (GRP) based on unsaturated polyester resin (UP) - Part 3: Fittings

3 Definitions

For the purposes of this standard, the definitions given in EN 1636-1 apply.

4 Interchangeability

NOTE: Interchangeability between products from different suppliers can only be achieved with appropriate regard to the components and joint dimensions.