



SLOVENSKI STANDARD

SIST-TP CEN/TR 15128:2005

01-september-2005

Pregled evropskih standardov za obnovo sistemov za odvod odpadne vode in za kanalizacijo

Survey of European Standards for rehabilitation of drain and sewer systems

Übersicht über Europäische Normen für die Sanierung von Entwässerungssystemen

Aperçu des Normes européennes pour la réhabilitation des réseaux d'évacuation et d'assainissement

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Ta slovenski standard je istoveten z: **CEN/TR 15128:2005**

ICS:

93.030 Zunanji sistemi za odpadno vodo External sewage systems

SIST-TP CEN/TR 15128:2005

en

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CEN/TR 15128

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ICS 93.030

English version

Survey of European Standards for rehabilitation of drain and sewer systems

Aperçu des Normes européennes pour la réhabilitation des réseaux d'évacuation et d'assainissement

Übersicht über Europäische Normen für die Sanierung von Entwässerungssystemen

This Technical Report was approved by CEN on 24 April 2005. It has been drawn up by the Technical Committee CEN/TC 165.

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

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (CEN/TR 15128:2005) has been prepared by Technical Committee CEN/TC 165 "Wastewater engineering", the secretariat of which is held by DIN.

CEN/TC 165 having determined the current status of European standardization regarding general requirements for drain and sewer systems and existing standards and draft standards on the subject of rehabilitation of drain and sewer systems, and CEN/TC 165 having considered the results of an enquiry submitted by EUREAU on the status of European Standards in the field of rehabilitation of drain and sewer systems, it was established that those were not sufficiently known.

It was agreed that information of the status of European standard work in this area was greatly needed.

Therefore, CEN/TC 165 decided to make this information in summary form available with the aid of an informative CEN document in the form of a CEN/TR and, if necessary, to give the necessary explanations.

Standards produced by the following Technical Committees are included in this document:

CEN/TC 155 "Plastics piping systems and ducting systems";

CEN/TC 164 "Water supply";

CEN/TC 165 "Wastewater engineering".

Because European manufacturers have disbanded the production of fibre cement pipes and fittings for drain and sewer systems, European Standards in that field are not included in this document.

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CEN/TR 15128:2005 (E)**1 Scope**

This document gives a survey of European Standards available in the field of rehabilitation of drain and sewer systems.

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.

NOTE Since Clause 5 refers to European Standards with their complete title they are not repeated here.

EN 476, *General requirements for components used in discharge pipes, drains and sewers for gravity systems*

EN 773, *General requirements for components used in hydraulically pressurized discharge pipes, drains and sewers*

EN 805, *Water supply - Requirements for systems and components outside buildings*

EN 1610, *Construction and testing of drains and sewers*

prEN 14801, *Conditions for pressure classification of products for water and waste water pipelines*

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3 Terms and definitions

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For the purposes of this document, the following terms and definitions apply.

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3.1**rehabilitation**

all measures for restoring or upgrading the performance of existing drain and sewer systems
[EN 752-1:1995]

3.2**renovation**

work incorporating all or part of the original fabric of the drain or sewer by means of which its current performance is improved
[EN 752-5:1995]

3.3**repair**

rectification of local damage
[EN 752-5:1995]

3.4**replacement**

construction of a new drain or sewer, on or off the line of an existing drain or sewer

3.5**"M" stage**

stage as manufactured, before any subsequent site processing of components associated with a particular repair or renovation technique
[EN 13380:2001]

3.6**"I" stage**

stage as installed, i.e. in final configuration after any site processing of components associated with a particular renovation or repair technique

[EN 13380:2001]

4 Rehabilitation techniques applicable to drain and sewer systems

Figure 1 shows the structure of this document and shows where an EN or ENs are available.

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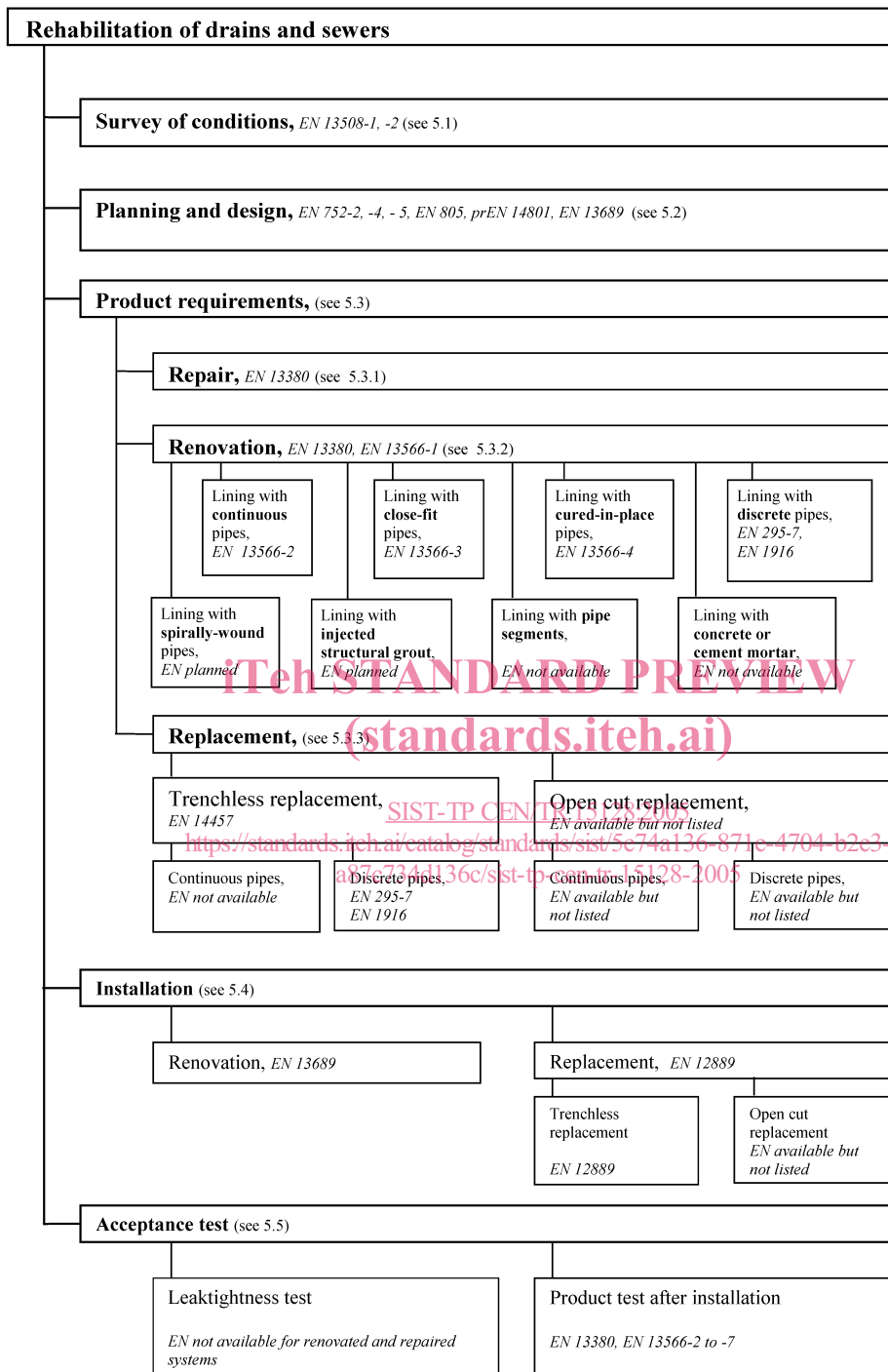


Figure 1 — Rehabilitation techniques applicable to drain and sewer systems

5 European Standards for rehabilitation of drain and sewer systems

5.1 Survey of condition

EN 13508-1:2003, *Condition of drain and sewer systems outside buildings — Part 1: General requirements.*

Summary: Establishment of the condition of existing drain and sewer systems and its elements outside buildings, Performance requirements and performance deficiencies are listed.

EN 13508-2:2003, *Conditions of drain and sewer systems outside buildings — Part 2: Visual inspection coding system.*

Summary: Specification of a system of codes which shall be used to describe the defects and features found in drains, sewers, manholes and inspection chambers identified by visual inspection. Where appropriate, EN 13508-2 can also be used for pressure and vacuum systems in accordance with the requirements of the employing authority.

5.2 Principles for planning and design

EN 752-2:1996, *Drain and sewer systems outside buildings — Part 2: Performance requirements.*

Summary: Specification of requirements to be considered when planning, designing, constructing, operating and maintaining drain and sewer systems operated mainly under gravity. These are basic performance requirements to which the sewer system shall operate; performance testing and performance assessment and documentation are included.

EN 752-4:1997, *Drain and sewer systems outside buildings — Part 4: Hydraulic design and environmental considerations.*

Summary: Sets out the principles which shall be followed for both the hydraulic design and consideration of environmental impact of drain and sewer systems that operate essentially under gravity.

EN 752-5:1997, *Drain and sewer systems outside buildings — Part 5: Rehabilitation.*

Summary: Sets out the principles and procedures for planning and design of rehabilitation works necessary to achieve prescribed levels of performance for existing drain and sewer systems, where investigations may lead to structural solutions such as replacement, renovation or repair. Regarding performance requirements of the rehabilitated system, part 5 indicates that they are similar to those for a new system (see EN 752-2 and EN 752-4).

EN 805:2000, *Water supply — Requirements for systems and components outside buildings.*

Summary: Specification of general requirements for water supply systems outside buildings including potable water mains and service pipes, service reservoirs, other facilities and raw water mains but excluding treatment works and water resources development. For significant modification and/or rehabilitation of existing water supply systems EN 805 specifies that for works of repair, renovation or replacement, the relevant requirements of the standard shall be followed. In case of repair or renovation, the design life extension may be less than 50 years. Allowable pressures (PFA, PMA and PEA) are defined. To ensure that pressure classification in ENs for products (used for water supply and pressurised wastewater systems) will be related to the allowable pressures as defined in EN 805, prEN 14801 shall be considered.

prEN 14801:2003, *Conditions for pressure classification of products for water and waste water pipelines.*

Summary: Specifies the installation and loading parameters to be used for the determination of the allowable pressures (PFA, PMA and PEA) as defined in EN 805, to components (pipes, joints, fittings, ferrules and valves), which have pressure related classification in European