

SLOVENSKI STANDARD oSIST prEN 17151:2017

01-oktober-2017

Cevni sistemi iz polimernih materialov, ki delujejo po težnostnem principu in so položeni v zemljo, za transport in shranjevanje vode, ki ni namenjena pitju - Preskusna metoda za ugotavljanje dolgotrajne tlačne odpornosti zabojev

Plastics piping systems for non-pressure underground conveyance and storage of non-potable water - Test method for determination of long term compression strength of boxes

Kunststoff-Rohrleitungssysteme für die drucklose unterirdische Entwässerung für Nicht-Trinkwasser - Prüfverfahren zur Bestimmung der Langzeitdruckfestigkeit von Versickerungsblöcken

Systèmes de canalisations en plastique pour le transport et le stockage souterrains sans pression de l'eau non potable - Méthode d'essai pour la détermination de la résistance à la compression à long terme des structures alvéolaires ultra-légères

Ta slovenski standard je istoveten z: prEN 17151

ICS:

23.040.03 Cevovodi za zunanje sisteme Pipeline and its parts for

transporta vode in njihovi deli external water conveyance systems

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English Version

Plastics piping systems for non-pressure underground conveyance and storage of non-potable water - Test method for determination of long term compression strength of boxes

Systèmes de canalisations en plastique pour le transport et le stockage souterrains sans pression de l'eau non potable - Méthode d'essai pour la détermination de la résistance à la compression à long terme des structures alvéolaires ultra-légères

Kunststoff-Rohrleitungssysteme für die drucklose unterirdische Entwässerung für Nicht-Trinkwasser -Prüfverfahren zur Bestimmung der Langzeitdruckfestigkeit von Versickerungsblöcken

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 155.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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prEN 17151:2017 (E)

Contents		Page
Euro	pean foreword	3
Introduction4		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	Symbols and abbreviations	6
5	Test method	6
6 6.1 6.2 6.3 6.4 6.5	Apparatus Compression testing machine A pair of parallel plates Timer Dimensional measuring devices Displacement measuring devices	7 7 7 7
6.6	Weighing device	
7 7.1 7.2 7.3 7.4	Test samples	
8 8.1 8.2	Procedures and calculations Test method Creep rupture test procedure	8 9
9	Test report	
Anne	os://standards.itel.ai/catalog/standards/sist/f5c3ec35-04a4-4e38-8209-c14d899d9970/sisex A (informative) Test method for determining linear behaviour	
A.1	Principle	11
A.2	Procedure	11
A.3	Calculations	11
Anne	ex B (normative) Procedure for fitting creep rupture data and determining the LCL strength for a design life of 50 year	12
B.1	Requirements	12
B.2	Principles of the analysis	12
B.3	Analysis Method	12
Bibliography		15

prEN 17151:2017 (E)

European foreword

This document (prEN 17151:2017) has been prepared by Technical Committee CEN/TC 155 "Plastics piping systems and ducting systems", the secretariat of which is held by NEN.

This document is currently submitted to the CEN Enquiry.

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prEN 17151:2017 (E)

Introduction

This standard is the result of intensive discussions within Working Group 26 of Technical Committee 155, which was entrusted with the development of this standard. The result of this standard is intended to reflect the current state of knowledge of determining and predicting the long-term lifetime of product groups mentioned in the scope while maintaining reasonable testing times for producers and developers of these systems.

The products covered by this standard are part of storm water management systems.

The working group is aware that these products are used in modular systems and that predicted lifetimes from this standard might not always reflect the maximum allowable loads on an installed system.

This standard is subject for evaluation and revision after a period of 5 years.

Linearity is assumed to extrapolate the (log) load versus log time curve from the results of the creep rupture tests. The test described in Annex A is intended to demonstrate linearity over the extrapolated lifetime by testing at elevated temperatures.

This test is given as an informative annex due to limited practical experience and lack of reliability analyses. Working Group 26 wants to encourage stakeholders to perform these tests before the next evaluation.

NOTE Linear behaviour of the boxes can be assumed when the difference in the slope between creep tests performed at 20 $^{\circ}$ C and at 70 $^{\circ}$ C as described in Annex A is small and therefore there has been no deviation from linear behaviour.

The test method follows the principles of ISO 9080 and applies them to the testing of boxes.

The working group is aware that the possibility of using one not failed data point at 4380 h might give a biased outcome in the lower 95 % confidence level (*LCL*) for the stress leading to a failure of 50 years. However, sensitivity analyses show that, when the value of the applied load is lower than the value of the calculated load from the previous tests, the calculated value of the maximum load after 50 years is always lower than when testing this point till failure. The use of this data point will be subject to change after evaluation of this standard.

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