SLOVENSKI STANDARD
SIST EN 253:2004/A2:2007

01-januar-2007

Cevi za daljinsko ogrevanje - Izolirani vezani cevni sistemi za podzemeljska toplovodna omrežja - Cevni sestav iz jeklene cevi, poliuretanske toplotne izolacije in zunanjega polietilenskega plašča

District Heating Pipes - Preinsulated bonded pipe systems for directly buried hot water networks - Pipe assembly of steel service pipe, polyurethane thermal insulation and outer casing of polyethylene

Fernwärmerohre - Werkmäßig gedämmte Verbundmantelrohrsysteme für direkt erdverlegte Fernwärmenetze - Verbund-Rohrsystem bestehend aus Stahl-Mediumrohr, Polyurethan-Wärmedämmung und Außenmantel aus Polyethylen

Tuyaux de chauffage urbain - Systemes bloqués de tuyaux pré-isolés pour les réseaux d'eau chaude enterrés directement - Tube de service en acier, isolation thermique en polyuréthane et tube de protection en poyéthylene

Ta slovenski standard je istoveten z: **EN 253:2003/A2:2006**

ICS:

23.040.07	Cevovodi za daljinsko ogrevanje in njihovi deli	Pipeline and its parts for district heat
23.040.10	Železne in jeklene cevi	Iron and steel pipes
91.140.65	Oprema za ogrevanje vode	Water heating equipment

SIST EN 253:2004/A2:2007 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 253:2003/A2

November 2006

ICS 23.040.10

English Version

District Heating Pipes - Preinsulated bonded pipe systems for directly buried hot water networks - Pipe assembly of steel service pipe, polyurethane thermal insulation and outer casing of polyethylene

Tuyaux de chauffage urbain - Systèmes bloqués de tuyaux pré-isolés pour les réseaux d'eau chaude enterrés directement - Tube de service en acier, isolation thermique en polyuréthane et tube de protection en poyéthylène

Fernwärmerohre - Werkmäßig gedämmte Verbundmantelrohrsysteme für direkt erdverlegte Fernwärmenetze - Verbund-Rohrsystem bestehend aus Stahl-Mediumrohr, Polyurethan-Wärmedämmung und Außenmantel aus Polyethylen

This amendment A2 modifies the European Standard EN 253:2003; it was approved by CEN on 28 September 2006.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant 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 amendment 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.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN 253:2003/A2:2006) has been prepared by Technical Committee CEN/TC 107 “Prefabricated district heating pipe systems”, the secretariat of which is held by DS.

This Amendment to the European Standard EN 253:2003 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2006, and conflicting national standards shall be withdrawn at the latest by May 2006.

Annex H of this document supersedes the entire Annex H of EN 253:2003. Annex H is informative.

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

Introduction

This document contains amendments to EN 253:2003 concerning the technical delivery conditions of steel service pipes and a revised Annex H.

1 Change to sub-clause 4.2.1 Quality

The present 4.2.1 shall be replaced by:

4.2.1 Quality

The technical delivery conditions of the steel service pipe shall be in accordance with Table 1:

Table 1. Service pipes

Type of pipe	Dimension	EN standard	Material
Seamless	All	EN 10216-2	P235GH
ERW	≤ 323,9 mm.	EN 10217-1 or EN 10217-2	P235TR1 or P235TR2 or P235GH
ERW	> 323,9 mm	EN 10217-2	P235GH
SAW	All	EN 10217-5	P235GH

For the calculation of the yield stress $R_{p0,2}$ at the design temperature in the temperature range up to 50 ºC the value of $R_{p0,2}$ for room temperature shall be used for P235TR1, P235TR2 and P235GH.

For the calculation of the yield stress $R_{p0,2}$, at the design temperature in the temperature range 50 < T ≤ 140 °C, the following formula shall be used for P235TR1, P235TR2 and P235GH:

$$R_{p0,2} = 227 - 0{,}28(T - 50)\ \text{N/mm}^2$$

All steel pipes and components used for manufacturing of pipe assemblies under the scope of this standard shall, as a minimum, be delivered *to the manufacturer* with an inspection certificate 3.1 according to EN 10204. *The inspection certificate shall on request be passed on to the customer.*

The manufacturer shall keep documentation of the inspection certificates.

A length of pipe shall not include a circular joint.

Replace Annex H with the following:

Annex H
(informative)

National A-deviations

A-deviation: National deviation due to regulations, the alteration of which is for the time being outside the competence of the CEN/CENELEC member.

This European Standard does not fall under any Directive of the EC. In the relevant CEN countries these A-deviations are valid instead of the provisions of the European Standard until they have been removed.

H.1 Swedish national legislative deviations on steel service pipes

According to the Provisions AFS 2005:2 *(on Vessels, Piping and Installations*) of the Swedish Work Environment Authority the pipe steel grades P235TR1 and P235TR2 according to EN 10217-1:2002 must not be used for piping of requirement G according to AFS 2005:2. Piping of requirement G has to fulfill the essential safety requirements in annex 1 of AFS 2005:2. For use in district heating piping systems it is necessary according to annex 1 of AFS 2005:2 to have specified material property values for elevated temperatures up to at least +120 ºC and EN 10217-1:2002, *Welded steel tubes for pressure purposes - Technical delivery conditions - Part 1: Non-alloy steel tubes with specified room temperature properties,* does not have any such material properties specified above room temperature. Pipe steel grade P235TR1 according to EN 10217-1:2002 does also not have any specified impact energy requirements, which also is an essential safety requirement of annex 1 in AFS 2005:2.

For welded steel pipes of requirement K according to AFS 2005:2 to be used in Sweden, the welding procedures and the welding personnel must be assessed and approved by a control and certification body respectively as provided for in Section 22 of AFS 2005:2. This control body and a certification body shall have obtained accreditation for the task in question under the Swedish Technical Inspection Act (SFS 1992:1119). Control and certification can also be performed by a control agency and certification body respectively from another country within the EEA (European Economic Area), if

— the control body is accredited for the task with reference to the requirements of the relevant standard in the EN 45000 series by an accrediting body which meets and applies to this assessment the requirements of ISO/TR 17010 or otherwise offers corresponding guarantees with regard to technical and professional competence and guarantees of independence.

— the certification body is accredited for the task with reference to the requirements of the relevant standard in the EN 45 000 series by an accrediting body which meets and applies to this assessment the requirements of EN 45 010 or otherwise offers corresponding guarantees with regard to technical and professional competence and guarantees of independence.

Non-destructive testing of the welds in welded steel pipes of requirement K according to AFS 2005:2, must have been carried out by a laboratory pursuant to Section 22. The laboratory shall have obtained accreditation for the task in question under the Swedish Technical Inspection Act (SFS 1992:1119). Non-destructive testing can also be performed by a laboratory from another country within the EEA (European Economic Area), if the laboratory is accredited for the task with reference to the ISO/IEC 17025 standard by an accrediting body which meets and applies for assessment the requirements of EN 45 010 or otherwise offers corresponding guarantees of technical and professional competence and independence.