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NSAI Standards

Irish Standard
I.S. EN 14419:2009

District heating pipes - Preinsulated bonded pipe systems for directly buried hot water networks - Surveillance systems

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I.S. EN 14419:2009

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EN 14419

March 2009

ICS 23.040.01

Supersedes EN 14419:2003

English Version

District heating pipes - Preinsulated bonded pipe systems for directly buried hot water networks - Surveillance systems

Tuyaux de chauffage urbain - Systèmes bloqués de tuyaux préisolés pour les réseaux d'eau chaude enterrés directement - Systèmes de surveillance

Fernwärmerohre - Werkmäßig gedämmte Verbundmantelrohrsysteme für erdverlegte Fernwärmenetze - Überwachungssysteme

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Foreword

This document (EN 14419:2009) has been prepared by Technical Committee CEN/TC 107 “Prefabricated District Heating Pipe Systems”, the secretariat of which is held by DS.

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of an identical text or by endorsement, at the latest by September 2009, and conflicting national standards shall be withdrawn at the latest by September 2009.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 14419:2003.

This second edition cancels and replaces the first edition (EN 14419:2003), which has been technically revised.

Annexes A, B and F are informative. Annexes C, D, E, G and H are normative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, 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 the United Kingdom.

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Introduction

The first edition of EN 14419 was approved in 2003. The main areas of the current revision are:

— testing procedures have been changed in order to include pipe elements with diffusion barriers according to revised version of EN 253:2009;

— testing procedures have been changed in order to include pipe elements for twin pipes according to EN 15698-1;

— pipe elements produced according to standard for preinsulated flexible pipe systems with bonded metal service pipes EN 15632-4 and standard for twin pipes EN 15698-1 have been added to the definitions of pipe elements suitable for instalment of measuring wires for surveillance systems;

— the text regarding testing (cf. 6.4 and 7.1) has been put in agreement with the text in 6.6 (all elements shall be tested);

— the term “moisture” has been deleted as a specific term and replaced by a note to the term “detection of moisture”;

— the term "QM-Programme" has been changed to "Quality control programme" in order to standardize the wording to other standards under TC 107.

This standard is a supplement to:

— EN 253, *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*

— EN 448, *District heating pipes – Preinsulated bonded pipe systems for directly buried hot water networks – Fitting assemblies of steel service pipes, polyurethane thermal insulation and outer casing of polyethylene*

— EN 488, *District heating pipes – Preinsulated bonded pipe systems for directly buried hot water networks – Steel valve assembly for steel service pipes, polyurethane thermal insulation and outer casing of polyethylene*

— EN 489, *District heating pipes – Preinsulated bonded pipe systems for directly buried hot water networks – Joint assembly for steel service pipes, polyurethane thermal insulation and outer casing of polyethylene*

— EN 13941, *Design and installation of preinsulated bonded pipe systems for district heating*

— EN 15632-1, *District heating pipes – Pre-insulated flexible pipe systems – Part 1: Classification, general requirements and test methods*

— EN 15632-4, *District heating pipes – Pre-insulated flexible pipe systems – Part 4 : Bonded system with metal service pipes; requirements and test methods*

— EN 15698-1, *District heating pipes – Preinsulated bonded twin pipe systems for directly buried hot water networks – Part 1: Twin pipe assembly of steel service pipe, polyurethane thermal insulation and outer casing of polyethylene*

These are all standards for preinsulated bonded pipe systems for directly buried hot water networks.

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1 Scope

This European Standard specifies basic functional requirements for surveillance systems for district heating pipe systems, specific requirements for measuring elements and their installation within preinsulated bonded pipes, valves and fittings, and the field assembly of these measuring elements in pipe joints.

This standard specifies requirements for the manufacture of measuring elements, for the manufacture of preinsulated bonded pipe elements with measuring elements and for the assembly of the measuring elements in the field.

All requirements and recommendations described in this standard are based on the experience gained with existing surveillance systems and their principal function, cf. Annex A.

The specific requirements given are only valid for electrical wire based surveillance systems forming an integral part of the pipes, valves, fittings and joints.

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.

EN 253, *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*

EN 448, *District heating pipes – Preinsulated bonded pipe systems for directly buried hot water networks – Fitting assemblies of steel service pipes, polyurethane thermal insulation and outer casing of polyethylene*

EN 488, *District heating pipes – Preinsulated bonded pipe systems for directly buried hot water networks – Steel valve assembly for steel service pipes, polyurethane thermal insulation and outer casing of polyethylene*

EN 489, *District heating pipes – Preinsulated bonded pipe systems for directly buried hot water networks – Joint assembly for steel service pipes, polyurethane thermal insulation and outer casing of polyethylene*

EN 15632-4, *District heating pipes – Pre-insulated flexible pipe systems – Part 4: Bonded system with metal service pipes; requirements and test methods*

EN 15698-1, *District heating pipes – Preinsulated bonded twin pipe systems for directly buried hot water networks – Part 1: Twin pipe assembly of steel service pipe, polyurethane thermal insulation and outer casing of polyethylene*

EN 61557-2, *Electrical safety in low voltage distribution systems up to 1000 V a.c. and 1500 V d.c. – Equipment for testing, measuring or monitoring of protective measures – Part 2: Insulation resistance (IEC 61557-2:2007)*

3 Terms and definitions

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

3.1
pipe element
preinsulated pipes, valves and fittings manufactured according to EN 253, EN 448, EN 488, EN 15632-4 and EN 15698-1

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