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**BS EN 15698-2:2015**



**BSI Standards Publication**

# **District heating pipes — Preinsulated bonded twin pipe systems for directly buried hot water networks**

Part 2: Fitting and valve assembly of  
steel service pipes, polyurethane thermal  
insulation and outer casing of polyethylene

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This British Standard is the UK implementation of EN 15698-2:2015.

The UK participation in its preparation was entrusted to Technical Committee RHE/9, Insulated underground pipelines.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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English Version

District heating pipes - Preinsulated bonded twin pipe systems  
for directly buried hot water networks - Part 2: Fitting and valve  
assembly of steel service pipes, polyurethane thermal insulation  
and outer casing of polyethylene

Tuyaux de chauffage urbain - Systèmes bloqués de bitubes  
préisolés pour les réseaux d'eau chaude enterrés  
directement - Partie 2 : Assemblages de raccords et  
d'appareils de robinetterie pour tubes de service en acier,  
isolation thermique en polyuréthane et protection extérieure  
unique en polyéthylène

Fernwärmerohre - Werkmäßig gedämmte  
Verbundmanteldoppelrohre für direkt erdverlegte  
Fernwärmenetze - Teil 2: Verbundformstück und  
vorgedämmte Absperrarmatur, bestehend aus Stahl-  
Mediumrohr, Polyurethan-Wärmedämmung und  
Außenmantel aus Polyethylen

This European Standard was approved by CEN on 3 July 2015.

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 CEN-CENELEC Management Centre or to any CEN member.

This European Standard 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 CEN-CENELEC Management Centre has the same status as the official versions.

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## European foreword

This document (EN 15698-2:2015) has been prepared by Technical Committee CEN/TC 107 "Prefabricated district heating and district cooling pipe system", 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 February 2016 and conflicting national standards shall be withdrawn at the latest by February 2016.

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.

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, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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## Introduction

EN 15698-1:2009 was published with the following title: '*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 15698-2 is a complement to the following existing European Standards for district heating bonded single and twin pipe systems:

- 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 15698-2 gives additional requirements for fitting and valve assemblies used in bonded twin pipe systems.

Waste management and recycling of materials is dealt with in Annex A.

Other standards from CEN/TC 107 are:

- 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 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 14419, *District heating pipes - Preinsulated bonded pipe systems for directly buried hot water networks - Surveillance systems*;
- EN 15632 (all parts), *District heating pipes - Pre-insulated flexible pipe systems*.

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## 1 Scope

This European Standard specifies requirements and test methods for fittings of prefabricated thermally insulated twin pipe assemblies comprising steel service fittings and/or valves from DN 15 to DN 250, rigid polyurethane foam insulation and an outer casing of polyethylene for use in directly buried hot water networks with preinsulated twin pipe assemblies in accordance with EN 15698-1:2009.

This European Standard covers the following:

- fitting assemblies, such as T-pieces, reducers and anchors;
- valve assemblies.

This European Standard applies only to insulated fitting assemblies for continuous operation with hot water at various temperatures in accordance with the scope EN 15698-1:2009.

This European Standard applies to fitting and valve assemblies with a minimum design pressure of 16 bar (overpressure) complying with EN 13941.

Guidelines for quality inspection and testing of fitting assemblies are given in EN 448:2015, Annex A and EN 15698-1:2009, Annex A.

Guidelines for quality inspection and testing of valve assemblies are given in EN 488:2015, Annex A and EN 15698-1:2009, Annex A.

Procedures for PE-welding are given in EN 448:2015, Annex B.

NOTE This European Standard does not include rules for calculation of loads and stresses.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 253:2009+A2:2015, *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 448:2015, *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 488:2015, *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 10204, *Metallic products - Types of inspection documents*

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

EN 14419, *District heating pipes - Preinsulated bonded pipe systems for directly buried hot water networks - Surveillance systems*

EN 15698-1:2009, *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*