

Malleable cast iron fittings with compression ends for polyethylene (PE) piping systems

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British Standard

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National foreword

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Summary of pages

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Tempergußfittings mit Klemmanschlüssen für Polyethylen (PE) - Rohrleitungssysteme

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Foreword

This European Standard has been prepared by Technical Committee ECISS/TC 29, Steel tubes and fittings for steel tubes, the Secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by September 2000, and conflicting national standards shall be withdrawn at the latest by September 2000.

This standard includes the following annexes:

Annex A (informative): Examples of design;

Annex B (informative): Quality assurance system;

Bibliography.

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

Introduction

In respect of potential adverse effects on the quality of water intended for human consumption, caused by the products covered by this standard:

- 1) this standard provides no information as to whether the product may be used without restriction in any of the Member States of the EU or EFTA;
- 2) it should be noted that, while awaiting the adoption of verifiable European criteria, existing national regulations concerning the use and/or the characteristics of these products remain in force.

1 Scope

This standard specifies the requirements for the design, performance and testing of fittings made of malleable cast iron (see also clause 5 Materials) with compression ends for polyethylene piping systems. It applies to piping systems in polyethylene (PE) materials for different application fields, such as water and gas supply, water distribution, irrigation and gaseous fuel systems.

The malleable cast iron fittings specified in this standard are of compression end type for the connection of PE pipes or of transition type with combined compression ends for pipes in different materials or with combined compression and threaded ends in conformance with prEN 10226-1. Their range of sizes covers nominal outside diameters of PE pipes d_n 16 to d_n 125 mm and pipe thread sizes 1/2 to 4.

2 Normative references

This European standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of publications apply to this European standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 681-1, *Elastomeric seals - Material requirements for pipe joint seals used in water and drainage applications - Part 1: Vulcanized rubber.*

prEN 682, *Elastomeric seals - Material requirements for joint seals used in pipes and fittings carrying gas and hydrocarbon fluids.*

EN 751-1, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water - Part 1: Anaerobic jointing compounds.*

EN 751-2, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water - Part 2: Non-hardening jointing compounds.*

EN 751-3, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water - Part 3: Unsintered PTFE tapes.*

prEN 1555-1, *Plastics piping systems for gaseous fuels supply - Polyethylene (PE) - Part 1: General.*

prEN 1555-2, *Plastics piping systems for gaseous fuels supply - Polyethylene (PE) - Part 2: Pipes.*

prEN 1555-5, *Plastics piping systems for gaseous fuels supply - Polyethylene (PE) - Part 5: Fitness for purpose of the system.*

EN 1562, *Founding - Malleable cast irons.*

prEN 10226-1, *Pipe threads where pressure tight joints are made on the threads - Part 1: Taper external threads and parallel internal threads – Dimensions, tolerances and designation.*

prEN 10226-2, *Pipe threads where pressure tight joints are made on the threads - Part 2: Taper external threads and taper internal threads – Dimensions, tolerances and designation.*

prEN 12201-1, *Plastics piping systems for water supply - Polyethylene (PE) - Part 1: General.*

prEN 12201-2, *Plastics piping systems for water supply - Polyethylene (PE) - Part 2: Pipes.*

prEN 12201-5, *Plastics piping systems for water supply - Polyethylene (PE) - Part 5: Fitness for purpose of the system.*

EN 10204, *Metallic products: Types of inspection documents.*

ISO 228-1:1994, *Pipe threads where pressure-tight joints are not made on the threads - Part 1: Designation, dimensions and tolerances.*

ISO 10838-1¹⁾, *Mechanical fittings for polyethylene piping systems for the supply of gaseous fuels – Part 1: Metal fittings for pipes of nominal outside diameter less than or equal to 63 mm.*

ISO 10838-2¹⁾, *Mechanical fittings for polyethylene piping systems for the supply of gaseous fuels – Part 2: Metal fittings for pipes of nominal outside diameter greater than 63 mm.*

3 Types of fittings

For types of fittings, see typical examples of design in Annex A (informative).

4 Definitions

For the purpose of this standard the following definitions apply.

4.1

fitting

connecting piece for pipes

4.2

transition fitting

a fitting jointing different types of pipe and/or comprising different types of outlet

4.3

fitting size

size designation of the nominal outside diameter, d_n , of the connecting PE pipe or of the size of the jointing thread

4.4

outlet

end of a fitting which connects with a pipe by compression or with a threaded piping component

4.5

run

two principal axially aligned outlets of a tee

4.6

branch

side outlet of a tee

1) To be published.