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Ductile iron pipes, fittings, accessories and their joints for gas pipelines - Requirements and test methods

I.S. EN 969:2009

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English Version

Ductile iron pipes, fittings, accessories and their joints for gas pipelines - Requirements and test methods

Tuyaux, raccords et accessoires en fonte ductile et leurs assemblages pour canalisations de gaz - Prescriptions et méthodes d'essai

Rohre, Formstücke, Zuberhörteile aus duktilem Gusseisen und ihre Verbindungen für Gasleitungen - Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 10 February 2009.

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Foreword

This document (EN 969:2009) has been prepared by Technical Committee CEN/TC 203 "Cast iron pipes, fittings and their joints", the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by September 2009, and conflicting national standards shall be withdrawn at the latest by December 2010.

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 969:1995.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of the EU Construction Products Directive (89/106/EEC).

This European Standard is in conformity with the general requirements already established by CEN/TC 165 "Waste water engineering" in the field of sewerage.

Annex ZA includes the requirements of the mandate given under the EU Construction Products Directive (89/106/EEC). Only if the requirements specified in Annex ZA are met, the CE marking will be effected.

For reasons of conformity with mandate M/131 "Pipes, tanks and ancillaries not in contact with water intended for human consumption", EN 969 has been revised by extension with Annex ZA (see Resolution CEN/BT 113/1994 and CEN/BT 63/1996) and Clause 9 for the evaluation of conformity.

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.

1 Scope

This European Standard specifies the requirements and associated test methods applicable to ductile iron pipes, fittings, accessories and their joints used for the construction of pipelines outside buildings:

- to convey air or combustible gases (e.g. natural gas or town gas) at pressures up to 16 bar;
- to be installed below or above ground.

NOTE 1 A combustible gas is a gas or any fuel that is in gaseous state at a temperature of 15 °C at a pressure of 1 bar.

This European Standard applies to pipes, fittings and accessories which are:

- manufactured with socketed, flanged or spigot ends;
- normally delivered externally and internally coated;
- suitable for gas temperatures between – 15 °C and 50 °C.

This European Standard covers pipes, fittings and accessories cast by any type of foundry process or manufactured by fabrication of cast components, as well as corresponding joints, in a size range extending from DN 40 to DN 600 inclusive.

This European Standard specifies requirements for materials, dimensions and tolerances, mechanical properties and standard coatings of ductile iron pipes and fittings. It also gives performance requirements for all components including joints. Joint design and gasket shape are outside the scope of this European Standard.

NOTE 2 In this European Standard, all pressures are relative pressures expressed in bars (100 kPa = 1 bar).

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 545:2006, *Ductile iron pipes, fittings, accessories and their joints for water pipelines — Requirements and test methods*

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

EN 682, *Elastomeric seals — Material requirements for seals used in pipes and fittings carrying gas and hydrocarbon fluids*

EN 1092-2, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated — Part 2: Cast iron flanges*

EN 10002-1, *Metallic materials – Tensile testing — Part 1: Method of test at ambient temperature*

EN ISO 4016, *Hexagon head bolts — Product grade C (ISO 4016:1999)*

EN ISO 4034, *Hexagon nuts — Product grade C (ISO 4034:1999)*

EN ISO 6506-1, *Metallic materials — Brinell hardness test — Part 1: Test method (ISO 6506-1:2005)*

EN ISO 7091, *Plain washers — Normal series — Product grade C (ISO 7091:2000)*

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