BS ISO 16132:2016

BSI Standards Publication

# Ductile iron pipes and fittings — Seal coats for cement mortar linings

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## National foreword

This British Standard is the UK implementation of ISO 16132:2016. It supersedes BS ISO 16132:2004 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PSE/10, Iron pipes and fittings.

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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Published by BSI Standards Limited 2016

ISBN 978 0 580 90826 2

ICS 23.040.10; 77.140.75

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 April 2016.

**Amendments/corrigenda issued since publication**

| Date | Text affected |
|---|---|

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# INTERNATIONAL STANDARD

# ISO 16132

Second edition
2016-05-01

# Ductile iron pipes and fittings — Seal coats for cement mortar linings

*Tuyaux et raccords en fonte ductile — Seal coats pour les revêtements de mortier de ciment*

Reference number
ISO 16132:2016(E)

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# Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 5, *Ferrous metal pipes and metallic fittings*, Subcommittee SC 2, *Cast iron pipes, fittings and their joints*.

This second edition cancels and replaces the first edition (ISO 16132:2004), of which it constitutes a minor revision.


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# Introduction

The intended purpose of a seal coat is to reduce the contact between a cement mortar lining and the contents of a water main, thereby restricting the leaching of inorganic materials into the water supply.

Seal coats are usually specified where the pipeline is to convey soft waters and/or where residence times are very long. Supply water quality data for such pipelines should be discussed between the prospective client and the seal coated pipe supplier to ensure the suitability of the product for use.

Attention is drawn to the fact that seal coated cement mortar lined surfaces in contact with, or likely to come into contact with, potable water need to conform to the requirements of national or international water supply or water quality regulations. Approval may be required for the individual components of the system, or for the combined system, depending upon the requirements of those national or international water supply or water quality regulations when used

— in accordance with the product manufacturer's instructions for use, and

— under any other appropriate conditions defined for that product within any published list of substances, products and processes approved to those water supply or water quality regulations.

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INTERNATIONAL STANDARD ISO 16132:2016(E)

# Ductile iron pipes and fittings — Seal coats for cement mortar linings

## 1 Scope

This International Standard specifies the requirements for seal coatings for factory application to the surfaces of cement mortar linings, which are factory applied to the interior of ductile iron pipes and fittings.

It provides the performance requirements for short-term sealing efficiency, long-term durability and cyclic pressure, as well as the routine testing requirements for visual appearance, coating thickness and adhesion.

This International Standard is applicable to products for potable and other water applications.

## 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.

ISO 2439, *Flexible cellular polymeric materials — Determination of hardness (indentation technique)*

ISO 2808, *Paints and varnishes — Determination of film thickness*

ISO 10523, *Water quality — Determination of pH*

ASTM D 3330, *Standard Test Method for Peel Adhesion of Pressure-Sensitive Tape*

## 3 Terms and definitions

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

**3.1**
**ductile iron**
type of cast iron used for pipes, fittings and accessories in which graphite is present primarily in spheroidal form

**3.2**
**fitting**
casting other than a pipe, which allows pipeline deviation or change of direction or bore

Note 1 to entry: Flanged sockets, flanged spigots and collars are also classified as fittings.

**3.3**
**test film**
film of consistent thickness and density, morphologically stable at the temperature of the substrate during seal coat application, used as a surrogate surface for the measurement of coating thicknesses

**3.4**
**pipe**
casting of uniform bore, with straight axis, having either socket, spigot or flanged ends

Note 1 to entry: This does not apply to flanged sockets or flanged spigots and collars, which are classified as fittings.

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