
**Ductile iron fittings, accessories and
their joints and valves — Epoxy coating**

*Raccords, accessoires et leurs assemblages et appareils de robinetterie
en fonte ductile — Revêtement époxy*

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 5, *Ferrous metal pipes and metallic fittings*, Subcommittee SC 2, *Cast iron pipes, fittings and their joints*.

Ductile iron fittings, accessories and their joints and valves — Epoxy coating

1 Scope

This document specifies the requirements and test methods applicable to factory applied epoxy coatings (fusion bonded or 2-pack liquid epoxy) for ductile iron fittings and accessories supplied to ISO 2531 and ISO 7186, and ductile iron valves.

It covers internal and external coatings for use in the conveyance of raw water, potable water and waste waters for operating temperatures up to 60 °C.

This document contains specifications for performance tests and routine tests of the coating.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 2531, *Ductile iron pipes, fittings, accessories and their joints for water applications*

ISO 4624, *Paints and varnishes — Pull-off test for adhesion*

ISO 7186, *Ductile iron products for sewerage applications*

ISO 8501-1, *Preparation of steel substrates before application of paints and related products — Visual assessment of surface cleanliness — Part 1: Rust grades and preparation grades of uncoated steel substrates and of steel substrates after overall removal of previous coatings*

ISO 8502-3, *Preparation of steel substrates before application of paints and related products — Tests for the assessment of surface cleanliness — Part 3: Assessment of dust on steel surfaces prepared for painting (pressure-sensitive tape method)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 2531 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

adhesion

pull off test

force per unit area, applied perpendicular to the surface, which is necessary to separate the coating from its substrate

3.2

cross linkage

chemical reaction between epoxy resin and hardener to form the final cured coating