
**Ductile iron pipes, fittings, accessories
and their joints — External zinc-based
coating —**

**Part 1:
Metallic zinc with finishing layer**

*Tuyaux, raccords et accessoires en fonte ductile et leurs
assemblages — Revêtement extérieur à base de zinc —*

Partie 1: Zinc métallique avec couche de finition

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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*.

This third edition cancels and replaces the second edition (ISO 8179-1:2004), which has been technically revised. The following changes have been made:

- the minimum quantity of Zn has been increased from 130 g/m² to 200 g/m²;
- the revision recognizes the technological advancements in the field regarding zinc-based coatings to increase the lifetime and reliability of ductile iron pipelines, improving protection to different types of corrosion (including general and localized) and the use of new alloy enrichments.

A list of all parts in the ISO 8179 series can be found on the ISO website.

Ductile iron pipes, fittings, accessories and their joints — External zinc-based coating —

Part 1: Metallic zinc with finishing layer

1 Scope

This document specifies an external protective coating system which is factory applied to ductile iron pipeline components as specified in ISO 2531, ISO 7186 and ISO 16631. This coating system comprises an electro-deposited metallic zinc-based coating of

- pure metallic zinc with a purity of 99,99 %,
- zinc and aluminium alloy with or without other metals, or
- other zinc alloys

followed by a finishing layer that can be bituminous paint or synthetic resin compatible with zinc-based coating.

NOTE ISO 8179-2 deals with zinc-rich paint 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 2808, *Paints and varnishes — Determination of film thickness*

3 Terms and definitions

No terms and definitions are listed in this document.

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>

4 Materials

The coating materials shall be

- pure metallic zinc with a purity of 99,99 %,
- zinc and aluminium alloy with or without other metals, or
- other zinc alloys

followed by a finishing layer that can be bituminous paint or synthetic resin compatible with zinc-based layer.