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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 43492-2023

**Thermal preinsulated ductile iron pipes, fittings and
accessories**

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting:

This document is modified to adopt ISO 9349:2017 "Ductile Iron Pipes, Fittings, Accessories and Their Interfaces Prefabricated Insulation Products":

Compared with ISO 9349:2017, this document has many structural adjustments: See the comparison list of structural number changes between the two documents:

Appendix A:

Compared with ISO 9349:2017, this document has many technical differences: Vertical single words are used in the outer margins of the clauses involved:

The line (|) is marked: A list of these technical differences and their causes is provided in Appendix B:

The following editorial changes have been made to this document:

---In order to be consistent with the existing standard system, the name of the standard is changed to "Prefabricated Insulated Ductile Iron Pipes, Fittings and Accessories";

---Added informative reference document GB/T 4622.1-2022 (see 4.2:2:4);

---Added Appendix A (informative) "Comparison between this document and ISO 9349:2017 structure number";

---Added Appendix B (informative) "Technical differences between this document and ISO 9349:2017 and their reasons";

---Added Appendix D (Informative) "Allowable Working Pressure";

---Added Appendix E (informative) "Thickness of Insulation Layer":

Please note that some content in this document may be subject to patents: The publisher of this document assumes no responsibility for identifying patents:

1 Scope

This document specifies the technical requirements, test methods, inspection rules and markings for prefabricated insulated ductile iron pipes, fittings and accessories:

This document is suitable for prefabrication in the factory, the insulation material is rigid polyurethane foam, the transportation temperature is not lower than 0°C, and the design temperature Water not higher than 130°C, prefabricated insulated ductile iron pipes, fittings and accessories with nominal diameters DN40~DN1600, including:

---Used for water supply, drainage, heating, cooling and other pipeline projects;

---Used for pressurized or pressureless transportation (design pressure does not exceed 2:5MPa for heating purposes);

---Used for underground (direct burial, pipe trench, comprehensive pipe gallery) or above ground (overhead) laying:

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, the dated quotations for undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document:

GB/T 528 Determination of tensile stress and strain properties of vulcanized rubber or thermoplastic rubber (GB/T 528-2009, ISO 37:

2005, IDT)

GB/T 1685 Determination of compressive stress relaxation of vulcanized rubber or thermoplastic rubber at room temperature and high temperature (GB/T 1685-2008, ISO 3384:2005, MOD) GB/T 1690 Test method for liquid resistance of vulcanized rubber or thermoplastic rubber (GB/T 1690-2010, ISO 1817:2005, MOD) GB/T 2518 Continuous hot-dip galvanized and zinc alloy coated steel sheets and strips GB/T 3280 Stainless steel cold-rolled steel plates and strips GB/T 3880.1 Aluminum and aluminum alloy plates and strips for general industrial use Part 1: General requirements GB/T 6031 Determination of hardness of vulcanized rubber or thermoplastic rubber (10IRHD~100IRHD) (GB/T 6031-2017, ISO 48:2010, IDT) GB/T 7759.1 Determination of compression permanent deformation of vulcanized rubber or thermoplastic rubber Part 1: Under normal and high temperature conditions (GB/T 7759.1-2015, ISO 815-1:2008, IDT) GB/T 7762 Static tensile test for ozone crack resistance of vulcanized rubber or thermoplastic rubber (GB/T 7762-2014, ISO 1431-1:2004, NEQ) GB/T 12754 Color-coated steel plates and steel strips GB/T 12829 Determination of tear strength of small specimens of vulcanized rubber or thermoplastic rubber (Delft specimens) (GB/T 12829-2006, ISO 34-2:1996, IDT) GB/T 13288.4 Surface roughness characteristics of steel surface treatment after spray cleaning before coating - Part 4:

ISO surface roughness comparison sample calibration and surface roughness measurement method stylus method (GB/T 13288.4-2013, ISO 8503-4:

1988, IDT)

GB/T 13295 Ductile iron pipes, fittings and accessories for water and gas (GB/T 13295-2019, ISO 2531:2009, MOD) GB/T 17456.1 Zinc coating on the outer surface of ductile iron pipes Part 1: Metallic zinc coating with finishing layer (GB/T 17456.1-2009, ISO

8179-1:2004,IDT)