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

**GB/T 31940-2025**

Replacing GB/T 31940-2015

**Bi-metal composite steel pipes for fluid transportation**

输送流体用双金属复合钢管

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## Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document replaces GB/T 31940-2015 "Bimetallic Composite Corrosion-Resistant Steel Pipe for Fluid Transportation" and GB/T 32958-2016 "Fluid Stainless steel composite steel pipe for transportation. This document is based on GB/T 31940-2015 and integrates the content of GB/T 32958-2016.

Compared with GB/T 31940-2015, in addition to structural adjustments, content integration and editorial changes, the main technical content changes are as follows.

- a) The scope of application has been changed (see Chapter 1, Chapter 1 of the 2015 edition);
- b) Added symbols and abbreviations (see Chapter 4);
- c) Added classification and code (see Chapter 5);
- d) The order content has been changed (see Chapter 6, Chapter 4 of the 2015 edition);
- e) The requirements for composite processing have been changed (see 7.1.1, 7.1.2, and 6.2.1 and 6.2.2 of the 2015 edition);

- f) The material grade and chemical composition requirements have been changed (see 8.1, 6.1 of the 2015 edition), and the welding material requirements have been added (see 8.1.5);
  - g) The flattening test requirements for high-frequency welded steel pipes have been deleted (see 6.6.2.1 of the 2015 edition);
  - h) Added requirements for shear bond strength and residual compressive stress of the lined composite steel pipe section (see 8.4 and 8.5);
  - i) Added negative pressure test requirements (see 8.6);
  - j) The hydraulic test requirements have been changed (see 8.7, 6.9 of the 2015 edition);
  - k) Added terminal and interface performance requirements (see 8.8);
  - l) The non-destructive testing requirements have been changed (see 8.9, 6.10 and Appendix B of the 2015 edition);
  - m) Added hygienic performance requirements (see 8.10);
  - n) Added external anti-corrosion consultation requirements (see 8.11.4);
  - o) Added the outer diameter size series value and outer diameter selection value (see 8.12.1) and the thread and groove connection complex in water supply and drainage, water conservancy projects The outer diameter and wall thickness of the steel pipe (see Appendix D);
  - p) Changed the requirements for out-of-roundness (see 8.12.2, 5.4 of the 2015 edition) and pipe end bevel requirements (see 8.12.5.1, 2015 edition).
- 5.5.2) Groove requirements (see 8.12.5.2, 5.5.1 of the 2015 edition);
- q) Added the requirements for the allowable deviation between actual weight and theoretical weight (see 8.12.6);
  - r) Added collapse test requirements (see Appendix A, Appendix A of the 2015 edition);
  - s) Added Appendix C, Appendix E, Appendix F, Appendix G, and Appendix H.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed by the China Iron and Steel Association.

This document is under the jurisdiction of the National Technical Committee on Steel Standardization (SAC/TC183).

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The previous versions of the documents replaced by this document are as follows.

- GB/T 31940, first issued in 2015 as GB/T 31940-2015, this is the first revision;
- GB/T 32958, first published in 2016 as GB/T 32958-2016, this is the first revision.

## 1 Scope

This document specifies the classification and code, ordering content, manufacturing process, and specifications of bimetallic composite steel pipes for conveying fluids (hereinafter referred to as composite steel pipes).

Process, technical requirements, test methods, inspection rules, marking, packaging, storage and quality certificate.

This document is applicable to composite steel pipes used to transport domestic water, fire water, air conditioning water, recycled water, sewage and waste water, as well as water conservancy projects.

Composite steel pipes for pipeline engineering, transportation of steam, gas, air, etc. and composite steel pipes for onshore oil and gas transportation, oil well gathering and transportation, and chemical pipelines.

## 2 Normative references

GB/T 222

GB/T 228.1

GB/T 229

GB/T 241

GB/T 246

GB/T 700

GB/T 983

GB/T 1591

GB/T 2102

GB/T 2651

GB/T 2653

GB/T 2828.1

GB/T 2975

GB/T 3091

GB/T 3287

GB/T 4334

GB/T 4336

GB/T 4340.1

GB/T 5117

GB/T 5118

GB 5135.11

GB/T 5293

GB/T 5310

GB/T 5777

GB/T 6396

GB/T 7306.2