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

CJ/T 358-2019

Replacing CJ/T 358-2010

**Polyethylene (PE) pipes for trenchless engineering
(English Translation)**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard is a revision of CJ/T 358-2010 "High Density Polyethylene Drainage Pipe for Trenchless Laying", which is similar to CJ/T 358-2010 the main changes are as follows.

- Modified the scope of application (see Chapter 1, Chapter 1 of the 2010 edition);
- Relevant definitions have been revised (see Chapter 3, Chapter 3 of the 2010 edition);
- Modified the material requirements (see Chapter 4, Chapter 4 of the 2010 edition);
- Added color strip material requirements (see 4.2);
- Added the performance requirements of the pipe material mixture (see 4.3);
- Added the requirements for the compatibility of pipe mixture welding (see 4.4);
- Added the performance requirements of the protective layer material of the coated pipe (see 4.5);
- Added pipe types (see Chapter 5);
- Increase the color requirements of pipes in different ranges of use (see 6.2);

- Modified the pipe length requirements (see 6.3.1, 2010 edition 5.3.1);
- Modified the requirements for the maximum average outer diameter of pipes (see 6.3.2, 2010 edition 5.3.2);
- The maximum out-of-roundness requirement of the pipe has been increased (see 6.3.2);
- The series of nominal outer diameter and standard size ratio have been added, and the wall thickness deviation requirements at any point of the pipe have been modified (see 6.3.3);
- Increase the minimum thickness and hardness requirements of the PP protective layer of the solid-walled pipe with a peelable polypropylene (PP) protective layer on the outer wall (see 6.3.4);
- Added the mechanical performance requirements of water supply, reclaimed water and gas pipes (see 6.4);
- Modified the mechanical performance requirements of drainage pipes (see 6.4, 2010 edition 5.4);
- Added the physical performance requirements of water supply, reclaimed water and gas pipes (see 6.5);
- Added the sanitary performance requirements for water supply pipes (see 6.6);
- Added the requirements for the suitability of the butt-welded joint system (see 6.7);
- Adjusted the test method (see Chapter 7, Chapter 6 of the 2010 edition);
- Modified the inspection rules (see Chapter 8, Chapter 7 of the 2010 edition);
- Added the test method for the memory capacity of the prefabricated folding tube (see Appendix A);
- The test method for the hoop tensile stress of the prefabricated folded pipe has been added (see Appendix B).

This standard was proposed by the Standard Rating Institute of the Ministry of Housing and Urban-Rural Development.

This standard is under the jurisdiction of the Municipal Water Supply and Drainage Standardization Technical Committee of the Ministry of Housing and Urban-Rural Development.

Drafting organizations of this standard. Science and Technology and Industrialization Development Center of Ministry of Housing and Urban-Rural Development, Total Petrochemical (Shanghai) Co., Ltd., Asia Large Group Company, Guangdong Liansu Technology Industrial Co., Ltd., Zhejiang Fengye Pipe Industry Technology Co., Ltd., Zhejiang Weixing New Building Materials Co., Ltd.

Co., Ltd., Zhejiang Zhongcai Pipeline Technology Co., Ltd., Hubei Jinniu Pipe Industry Co., Ltd., Fujian Hengjie Plastic New Material Co., Ltd., Yonggao Co., Ltd., Baolu Qixing Pipe Industry Co., Ltd., Jiangsu Belden Plastic Industry Development Co., Ltd., Jiangsu Baopeng Technology Pipe Industry Co., Ltd.

1 Scope

This standard specifies the terms and definitions, symbols, abbreviations, materials, and product divisions of polyethylene pipes (hereinafter referred to as "pipes") for trenchless engineering Types, requirements, test methods, inspection rules, marking, packaging, transportation and storage.

This standard is applicable to polyethylene used for urban water supply, drainage, reclaimed water and gas, where the working temperature does not exceed 40°C and adopts trenchless laying.

Pipe.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 531.1-2008 Test method for indentation hardness of vulcanized rubber or thermoplastic rubber Part 1: Shore durometer method (Shore Hardness) GB/T 1033.1-2008 Plastic Non-foam Plastic Density Determination Part 1: Immersion Method, Liquid Pycnometer Method and Titration Method GB/T 1040.2 Determination of tensile properties of plastics Part 2: Test conditions for molding and extrusion plastics GB/T 2828.1 Sampling inspection procedure by attributes Part 1: Batch inspection sampling plan retrieved by acceptance quality limit (AQL) GB/T 2918 Standard environment for condition adjustment and testing of plastic samples GB/T 3682.1 Plastic thermoplastic melt mass flow rate (MFR) and melt volume flow rate (MVR) measurement Part 1: Standard Methods GB/T 4217 Nominal outer diameter and nominal pressure of thermoplastic pipes for fluid transportation GB/T 6111 Thermoplastic piping system for fluid transportation-Determination of internal pressure resistance GB/T 6671-2001 Thermoplastic pipe longitudinal shrinkage determination GB/T 8804.1 Determination of tensile properties of thermoplastic pipes-Part 1: General test methods GB/T 8804.3 Determination of tensile properties of thermoplastic pipes-Part 3: Polyolefin pipes GB/T 8806 Plastic piping system plastic parts size determination GB/T 9341 Determination of bending properties of plastics GB/T 9647 Thermoplastic pipe ring stiffness determination GB/T 10798 Thermoplastic pipe general wall thickness table GB/T 13021 Determination of carbon black content of polyethylene pipes and fittings (thermal weight loss method) GB/T

14152-2001 Thermoplastic pipe resistance to external impact test method hour hand rotation method GB/T 15558.1-2015 Buried Polyethylene (PE) Piping System for Gas Part 1: Pipes GB/T 17219 Safety evaluation standard for drinking water distribution equipment and protective materials GB/T 18042 Thermoplastic pipe creep rate test method GB/T 18251 Method for determination of pigment or carbon black dispersion in polyolefin pipes, pipe fittings and mixtures GB/T 18476 Determination of the resistance to crack growth of polyolefin pipes for fluid transportation. Test method for slow crack growth of notched pipes (cut Mouth test) GB/T 19278 General terms and definitions for thermoplastic pipes, fittings and valves GB/T 19279 Test Method for Slow Crack Growth Cone of Polyethylene Pipe