

ICS 91.140
CCS P 42

CJ

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

CJ/T 323-2015

Replacing CJ/T 323-2010

**Steel wire reinforced ultra-high molecular weight polyethylene
composite pipe
(English Translation)**

Issued on: January 20, 2015

Implemented on: July 1, 2015

**Issued by: Ministry of Housing and Urban-Rural Development of the
People's Republic of China**

Table of Contents

Preface
1 Scope
2 Normative references
3 Terms and definitions, symbol
4 Classification and marking
5 Structure and materials
6 Specifications
7 Requirements
8 Test Method
9 Inspection rules
10 Logo, transport and storage
Appendix A (Informative) Name and the corresponding ultra-high molecular weight polyethylene resin viscosity average molecular weight (M_n) and the typical business name and
Corresponding viscosity average molecular weight (M_n) control
Appendix B (informative) Performance of UHMWPE mixture Table
Appendix C (Informative) Adhesion resin performance table
Appendix D (normative) composite pipe connections
Appendix E (Normative) mortar wear rate test method

Foreword

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

This standard is the revision of CJ/T 323-2010 "UHMW polyethylene steel skeleton composite pipe", compared with CJ/T 323-2010 the main technical changes are as follows.

- Standard name was revised as "UHMWPE steel skeleton composite pipe";
- Modify the 3.1 pipe in the definition;
- Modify the 4.2 "example" part of the content;
- Remove the 5.1 "structure" content, replace "Figure 2" and as "structure" content, delete 5.1.2 and 5.1.3;
- Modify the contents of 5.2.1, 5.2.2, 5.2.3 and 5.2.4;

- Change 6.1 in Table 1 and Table 2;
- Modify the contents of 6.2, an increase of Table 3;
- Modify Table 6.3 in Table 4 and the temperature range of representation, delete the "70 °C ~ 80 °C" correction factor, modify the "60 °C ~ 70 °C" range of 60 °C < temperature (t) ≤ 65 °C";
- Canceled the 6.4 "diameter reduction processing";
- Modify 7.2 Table 6 in the working temperature "≤ 80" to "≤ 65", "≤ 60" to "≤ 40", and adjusted to 6.6;
- In 7.3.2 added "color bar requirements" and adjusted to 7.2.2;
- Appendix A is adjusted to Appendix B, add Appendix A;
- Removed Appendix C;
- Appendix B is adjusted to Appendix C and "hot melt performance table" to "adhesive resin performance table";
- Appendix D changes.

This standard proposed by the Ministry of Housing and Urban Standard and Design Institute.

This standard by the Ministry of Housing and Urban Water Supply and Drainage Standardization Technical Committee building centralized.

This standard was drafted. Jiangsu Shen Shi New Material Technology Co., Ltd., Harbin Institute of Technology.

1 Scope

This standard specifies the terms and definitions, symbols, classification and superscript of ultra-high molecular weight polyethylene steel skeleton composite pipe (hereinafter referred to as composite pipe) Notes, Structure and Materials, Specifications, Requirements, Test Methods, Inspection Rules, Marking, Transport and Storage.

This standard applies to urban water supply, building water supply, fire water supply, special fluids (including the appropriate use of industrial wastewater, corrosive gas-soluble Slurry, solid powder, etc.) pipe for transportation, but also for the transportation of oil and gas in the oil and gas industry, sewer transmission and mixed compound pipe, town gas can be used by reference. Composite pipe conveying medium temperature is suitable for -40 °C ~ 65 °C.

2 Normative references

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

GB/T 2791 adhesive T peel strength test methods flexible materials to flexible materials
 GB/T 2828.1 Sampling procedures for inspection - Part 1. Batch inspection sampling plan by acceptance quality limit (AQL)
 GB/T 2829 cycle test count sampling procedures and tables (for the stability of the test process)
 GB/T 2918 plastic sample conditioning and testing of the standard environment
 GB/T 3681 plastic natural daylight weathering, solar weathering after glass filtration and Fresnel lens to accelerate solar weathering Exposure test method
 GB/T 4217 thermoplastic pipe delivery fluid nominal diameter and nominal pressure Thermoplastics pipes for the conveyance of fluids - Pressure resistance test methods
 Plastics piping systems - Determination of dimensions of plastic parts
 Water supply polyethylene (PE) pipe
 GB/T 14450 bead wire
 GB 15558.1-2003 Buried polyethylene (PE) piping systems for gas - Part 1. Tubing (ISO 4437.:2014, MOD)
 Fluidized plastic pipes - Hydraulic instantaneous burst and pressure test methods
 GB/T 17219 drinking water distribution equipment and protective materials safety evaluation criteria
 SY/T 6662.1 non-metallic composite pipe for oil and gas industry - Part 1. reinforced steel pipe composite polyethylene pipe

3.1 Terms and definitions

The following terms and definitions apply to this document.

3.1.1

UHMWPE steel skeleton composite pipe
 steelwirereinforcedultra-highmolecularweightpolyethylene compositepipe UHMWPE inner tube as the matrix, using the bead wire left and right spiral wound as a skeleton, high-density polyethylene as a protective layer, and through the adhesive resin composite pipe.