

## PROFESSIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

## 中华人民共和国城镇建设行业标准

CJ/T 225-2011

Replace CJ/T 225-2006

# Metal reinforced polyethylene (PE) spiral corrugated pipe for underground sewer

埋地排水用钢带增强聚乙烯(PE)螺旋波纹管

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#### Foreword

This standard is prepared according to the rules specified in GB/T 1.1-2009.

This standard is an amendment of CJ/T 225-2006 *Metal Reinforced Polyethylene (PE) Spiral Corrugated Pipe for Underground Sewer*, compared with CJ/T 225-2006, the changes of main technical content are as follows:

- —Improved technical indictors' requirements of raw materials and added galvanized steel band.
- —Proposed the requirements of dividing sections according to the pipe diameter and improved indicators for the tensile strength of the laminated wall and welding seam.
- —Added planar-shaped port pipe that is vertical to axis in pipe structure.
- —Performed larger amendment on connection type and method: added planar-shaped port form in connection type (Listed in Annex C)
- —Added ring stiffness SN10 levels.
- —Added pipe dimensions of 2200, 2400 and 2600 specifications.
- —Added Annex B Test Method of Adhesive Resin Water Resistance Immersion Performance, Annex C Common Pipe Connection Type, and Annex D Preparation of Ring Stiffness Sample and Annex E Preparation Method of Pipe Laminated Wall Tensile Strength Test Sample.

This standard is proposed by Standard Rating Institute of Ministry of Housing and Urban-rural Development.

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

Units that are responsible for drafting this standard: Sichuan Senpu Pipe Co., Ltd.

Units involved in drafting this standard: Tianjin Shengxiang Plastic Pipe Industry Co., Ltd., Guizhou Senrui Pipe Industry Co., Ltd., Shanghai Banzan Macromolecule Material Co. Ltd., Cangzhou Mingzhu Plastic Co., Ltd., Guangdong Liansu Technology Industrial Co., Ltd., Guangzhou Fengye Pipe Industrial Co., Ltd., Sichuan Goldstone Orient New Material Equipment Inc., Sichuan Huangsheng Pipe Industry Co., Ltd., Xiamen Honghao Pipe

Industry Co., Ltd., Ezhou Xingxin Building Materials Co., Ltd., Hangzhou Boda Plastic Technology Co., Ltd., CNLON Co., Ltd., Changsha Qianyan Plastic Technology Development Co., Ltd., Shandong Chenshi Group Co., Ltd. and Huangsheng Pipe Group Co., Ltd.

Main drafters of this standard: Jiang Zepei, Li Zhi, Li Wenquan, Li Xiaomin, Bi Honghai, Jia Xiaohui, Li Xintuan, He Jianxing, Chen Shaojiang, Wu Zhiguo, Zheng Haoyun, Jiang Jinhua, Chen Huasheng, Ye Zhengmao, Fan Gang, Chu Jiangshun, Chen Xiantao, Wu Jinghua, Shao Taiqing.

The issuances of previous versions of the standard replaced by this standard are as follows:

— CJ/T 225—2006.

## Metal reinforced polyethylene (PE) spiral corrugated pipe for underground sewer

#### 1 Scope

This standard specifies the terms and definitions, symbols, abbreviations, raw materials, grading and marking, pipe structure and connection methods, requirements, test methods, inspection rules, marking, transportation and storage of the metal reinforced polyethylene (PE) spiral corrugated pipe.

This standard applies to the rainwater, sewage and other underground drainage pipeline with transmission medium temperature not greater than  $45^{\circ}$ C.

#### 2 Normative References

The articles contained in the following documents have become this standard when they are quoted herein. For the dated documents so quoted, the latest editions (including all corrections) shall be applicable to this Standard.

GB/T 228 Metallic materials--Tensile testing at ambient temperature

GB/T 1033.1 Plastics - Methods for determining the density of non-cellular plastics - Part 1: Immersion method liquid pyknometer method and titration method

GB/T 1633 Plastics--Thermoplastic materials--Determination of Vicat softening temperature (VST)

GB/T 1842 Plastics - Test method for environmental stress-cracking of polyethylene

GB/T 2828.1-2003 Sampling procedures for inspection by attributea-Part1: Sampling schemes indexed by acceptance quality limit(AQL) for lot-by-lot inspection

GB/T 2918 Plastics--Standard atmospheres for conditioning and testing

GB/T 3682 Determination of the melt mass-flow rate (MFR) and the melt volume-flow rate (MVR) of thermoplastics

GB/T 5470 Plastics - Determination of the brittleness temperature by impact

GB/T 6111 Thermoplastics pipes for the conveyance of fluids—Resistance to internal pressure—Test method

GB/T 8840.3 Thermoplastic pipes--Determination of tensile properties--Part 3: Polyolefin pipes

GB/T 9341 Plastics - Determination of flexural properties

GB/T 9345.1 Plastics - Determination of ash - Part 1: General methods

GB/T 9647 Thermoplastics pipes--Determination of ring stiffness

GB/T 14152-2001Thermoplastics pipes--Determination of resistance to external blows-Round-the-clock method

GB/T 17391 Test method for thermal stability of polyethylene pipes and fittings

GB/T 13021 Determination for the carbon black content of polyethylene pipes and fittings by calcination and pyrolysis

GB/T 18042 Thermoplastics pipes--Determination of creep ratio

GB/T 19472.2 Polyethylene structure-wall piping system for underground usage part 2: Polyethylene spirally enwound structure-wall pipes

GB/T 19789 Packaging materials—Test method for oxygen gas permeability characteristics of plastic film and sheeting—Coulometric sensor

#### 3 Terms and definitions, symbols and abbreviations

The following terms, definitions, symbols and abbreviations are applicable to this document.

#### 3.1 Terms and definitions

#### 3.1.1 Metal reinforced polyethylene (PE) corrugated pipe, MRP

The metal reinforced spiral corrugated pipe that took polyethylene (PE) resin as matrix, and the steel band that the surface coated with adhesive resin and shaped into waveform as main support structure and combined with the inner and outer layers of polyethylene into overall inner wall straightness type.

#### 3.1.2 Anticorrosion layer thickness



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