



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

CJ/T 225-2011

**Metal reinforced polyethylene (PE) spirally corrugated pipe for
underground sewer
(English Translation)**

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Foreword

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

This Standard is an revision to 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.

- INCREASE technical indicators' requirements of raw materials, and ADD galvanized steel-strip.

- PROPOSE the requirements of dividing sections according to the pipe diameter, and IMPROVE indicators for the tensile strength of the laminated wall and

welding seam.

- ADD planar-shaped port pipe that is vertical to axis in pipe structure.
- PERFORM larger revision on connection type and method. ADD planar-shaped port form in connection type (listed in Annex C).
- ADD ring-stiffness SN10 level.
- ADD pipe dimensions of 2200, 2400, and 2600 specifications.
- ADD Annex B Test Method of Adhesive Resin Water Immersion Resistance Performance, Annex C Common Pipe Connection Type, Annex D Preparation of Ring-stiffness Sample, and Annex E Preparation Method of Pipe Laminated Wall Tensile Strength Test Sample.

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

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

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Previous version 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°C.

2 Normative references

The following documents are essential for the application of this Standard. For dated references, only dated edition applies to this Standard. For undated references, the latest edition (including all amendments) applies.

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 pycnometer 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 attributes - Part 1.

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 14152-2001 Thermoplastics 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 entwined 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 and definitions, symbols, and abbreviations are applicable to this document.

3.1.1 Metal reinforced polyethylene (PE) corrugated pipe, MRP

The metal reinforced spiral corrugated pipe that takes polyethylene (PE) resin as matrix; uses the steel-strip of which the surface is coated with adhesive resin and is shaped into waveform as the main support structure; and combines with the inner and outer layers of polyethylene into overall inner wall straightness type.