

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

YD/T 841-1996

**Underground communication pipe with plastic pipe
(English Translation)**

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Foreword

This Standard was proposed on the premise of widely promoting the new structure plastic pipe in the developed countries; it is aimed to reform the backwardness of domestic use of cement pipe block, and achieve modernization.

When this Standard was proposed, some developed countries had prepared the formal standards on the stress-free delivery plastic pipe including plastic pipe for underground communication pipe, such as German DIN 16961, American ASTM F949-89; however, there is no unique standard prepared for the communication plastic pipe. European Organization for Standardization published a draft on stress-free pipe; International Organization for Standardization (ISO) published several individual provisions concerning this aspect, thereof including the most important aperture series, which plays an important role for preparing this Standard.

"Rigid PVC (PVC-U) Double-wall Corrugated Pipe" issued by Chinese Ministry of Light Industry, and several performance standards approved to be issued by State Bureau of Technical Supervision also play a guiding role for preparing this Standard. Appendix A of this Standard is informative.

This Standard was proposed and shall be under the jurisdiction of China Academy

of Telecom Research and Planning of Ministry of Post and Telegraph.

Drafting organizations of this Standard. China Association of Senior Scientists and Technicians Post and Telecommunications Branch, and Beijing Design Institute of Ministry of Post and Telegraph.

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The Standard was firstly published on April 4, 1996.

Underground communication pipe
with plastic pipe

1 Scope

This Standard specifies the classification and type, shape and structure size, technical requirements, test methods, inspection rules, labels, package, transportation and storage of underground communication pipe used rigid PVC, and high and low density polyethylene plastic pipe (hereinafter referred to as pipe) products.

This Standard is applicable to the outdoor communication cable and fiber optic cable pipe systems within the local network range, which include trunk pipeline, feeder pipeline, wiring pipeline, and private network pipeline. In addition to the specifically provided long-distance communication pipeline, others can also refer to this Standard...

2 Normative References

The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. At the time of publication, the editions indicated are valid. All standards are subject to revision. The parties who are using this Standard shall explore the possibility of using the latest version of the following standards.

GB 2828-81 Sampling Procedures and Tables for Lot-by-Lot Inspection by
Attributes (Apply to Inspection of Successive Lots or Batches)

GB 2918-82 Plastics - Standard Atmospheres for Conditioning and Testing

GB 6671.2-86 Polyethylene (PE) Pipes - Determination of Longitudinal Reversion

GB 8804.2-88 Test Methods of Tensile Properties for Thermoplastic Pipes -

Polyethylene (PE) Pipes

GB 8805-88 Determination of Deflection for Rigid Plastic Pipes

GB 8806-88 Method for Dimension Measuring of Plastic Pipes

GB 96467-88 Test Method for External Loading Resistance for Plastic Pipe

GB/T 13849-93 Local Telecommunication Cables with Polyolefin Insulation and Polyolefin Sheath

GB/T 14152-93 Thermoplastic Pipes - Determination of Resistance to External Impact - True Impact Rate Method

YD/T 630-93 Test Method of Copper-Core, Polyolefin Insulated, Composite Aluminum-Plastic Sheathed Cables for Urban Local Communications

ZB G 33008-89 PVC Corrugated Pipe

3.1 Product classification

Communication plastic cable pipe can be classified into the following ones as per the materials.

--- High density polyethylene (HDPE) pipe taking high density polyethylene as the main material;

--- Rigid PVC (PVC-U) pipe taking rigid PVC as the main material.

It can be classified into the following pipes as per the structure.

--- Double-wall corrugated pipe with smooth internal wall and corrugated external wall ("double-wall corrugated pipe" for short);

--- Composite foam pipe with smooth internal and external wall, and intermediate containing foam layer ("composite foam pipe" for short);

--- Solid wall plastic pipe with smooth internal and external wall ("solid wall pipe" for short);

--- Single-wall corrugated pipe with uneven internal and external wall.

It can be classified into the following pipes as per the molding appearance.

- Hard straight pipe;
- Hard bent pipe;
- Rotatable pipe.

3.2 Product model and label

Product model and label consists of prefix, material, structure, molding appearance, outside/inside diameter and plant name.

4.5 Refer to Table 1 for the pipe structure and size; the diameter of pipe used in the

same city shall be consistent as much as possible; refer to Appendix A for the application range of various pipe diameters.

Table 1 mm

Nominal

Diameter

Allowable Deviation of Outside

Diameter Minimum Inside Diameter

di min

Pipe Length Application Range Composite foam,

solid wall pipe

Double-wall

corrugated pipe

+0.4

+0.3

+0.3

+0.3

+0.3

+0.4

-0.7

+0.3