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

**GB/T 18477-2001**

Replacing GB/T 18477-2001

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**The underground drainage structural pipe system with a hard  
polyvinyl chloride (PVC-U) -- Part 1: double wall corrugated  
pipes**

**(English Translation)**

**Issued on: December 5, 2007**

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### Foreword

GB/T 18477 "buried drainage with a hard polyvinyl chloride (PVC-U) structure wall pipeline system" is divided into three parts.

- Part 1. double wall corrugated pipe;
- Zi Part 2. Reinforced Pipe (ready to develop);
- Part 3. Axial hollow double wall pipes (preparation formulation).

This section GB/T Part of 118,477.

This Part replaces GB/T 18477-2001 "buried drainage with a hard polyvinyl chloride (PVC-U) double wall corrugated pipes." This standard revision with reference to the international standard ISO/DIS21138-1.2006 "non-pressure underground drainage and sewerage - Thermoplastics piping systems for rigid PVC (PVC-U), polypropylene (PP) and polyethylene (PE) structure wall pipe systems - Part 1. pipes, fittings and material requirements and system performance is Seeking "and ISO/DIS21138-3.2006" non-pressure underground drainage and sewerage - Thermoplastics piping systems for rigid polyvinyl chloride (PVC-U), poly Propylene (PP) and polyethylene (PE) structure wall pipe systems - Part 3. Type B is not smooth outer pipe and tube "on the hard polyvinyl chloride it requires structural wall pipe section.

This section compared with the GB/T 18477-2001 main changes are.

- Added "definitions, symbols" chapter (see Chapter 3);
- Increasing the size of the inner diameter of the series (see 7.3);
- Increasing the wall thickness of the laminate, inner layer thickness requirements (see 7.3);
- Increasing the density requirements (see 7.4);
- Increasing system suitability test (7.5);

--- Increased in Appendices A and B.

Please note that some of the content of this section may involve patents. This part of the release mechanism should not bear the responsibility to identify these patents.

Appendix A of this section is an informative annex, Annex B normative appendix.

This part is proposed by the China National Light Industry Council.

This part of the National Plastics Standardization Technical Committee (SAC/TC48) centralized.

This section drafted by. AD Plastic Industry Group, Zhejiang Science and Technology Co., Ltd. pipeline in the fiscal, Liansu Technology Industrial Co. Ltd., Fujian Asia-built New Material Technology Co., Ltd., Anhui-high-tech management of the Company, Chongqing and plastic LAB Electric Co., Ltd., Hangzhou Arrival Plastic Co., Ltd., Jiangsu Province Product Quality Supervision and Inspection Center.

## 1 Scope

This section GB/T 18477 specifies the polyvinyl chloride resin as the main raw material, extrusion underground drainage with a hard polyvinyl chloride Double wall corrugated pipes (hereinafter referred to as "pipe") material classification, structure and pipe connections, technical requirements, test methods, inspection rules and signs, Transportation and storage.

This section applies to municipal non-pressure underground drainage, outside the building drainage, irrigation and drainage pipe can also be used for communication cable threading cannula.

Taking into account the material temperature resistance, chemical resistance and can be used for non-pressure underground industrial sewage pipes.

## 2 Normative references

The following documents contain provisions which, through reference GB/T 18477 in this section, constitute provisions of this part. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 1033-1986 plastic density and relative density test method GB/T 2828.1-2003 Sampling procedures for inspection - Part 1. by acceptance quality limit (AQL) retrieval batch test sample Programme (ISO 2859-1:1999, IDT) GB/T 2918-1998 standard plastic sample conditioning and environmental tests (idt ISO 291:1997) GB/T 6111-2003 Test

method for conveying fluid pressure within the thermoplastic pipe (ISO 1167:1996, IDT)  
GB/T 8806 plastic pipe size measurement method (GB/T 8806-1988, eqv ISO 3126. 1974)  
GB/T 9647-2003 thermoplastic pipe ring stiffness determination (ISO 9969:1994, IDT)  
GB/T 14152-2001 thermoplastic pipe resistance to external impact performance test clock  
method (eqv ISO 3127:1994) GB/T 18042-2000 Test method for thermoplastic plastic pipe  
creep ratio (eqv ISO 9967:1994) GB/T 19278-2003 Thermoplastics pipes, fittings and  
valves General terms and their definitions ISO 13968:1997 Plastics pipes and delivery  
systems Thermoplastics pipes - Determination of ring flexibility

### 3 Definitions, symbols

GB/T 19278-2003 determined and the following definitions and symbols apply to this section.

#### 3.1 Definitions

##### 3.1.1

Nominal size DN

It represents a number of pipe sizes in millimeters (mm) in units of approximate dimensions.

##### 3.1.2

Nominal size DN/OD

Associated with the outer diameter of the nominal size in millimeters (mm).

##### 3.1.3

Nominal size DN/ID

And the inner diameter of the relevant nominal dimensions in millimeters (mm).