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

CJ/T 210-2005

**Random polypropylene/aluminum stable composite pipe
(English Translation)**

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Table of Contents

Foreword	
1 Scope	
2 Normative references	
3 Definitions, symbols and abbreviations	
3.1 Definition	
3.2 Symbol	
3.3 Abbreviations	
4 Conditions of use level, product classification, tube series S value selection	
4.1 Conditions of use level	
4.2 Product Classification	
4.3 Pipe series S value of choice	
5 Material	
5.1 Random Copolymerization Polypropylene Resin (PP-R)	
5.2 Polyethylene resin	
5.3 Aluminum	
5.4 Hot melt adhesive	
5.5 Back to the material	
6 Technical requirements	
6.1 Color	
6.2 Appearance	
6.3 Specifications and structure size	
6.4 PP-R plastic aluminum steady-state pipe performance requirements	
6.5 System Suitability	
7 Test method	
7.1 Sample conditioning and testing of the standard environment	
7.2 Appearance and color	
7.3 Structure size	
7.4 Tube minimum average peel force	
7.5 Hydrostatic test	
7.6 Longitudinal retraction rate	
7.7 Hygienic performance test	
7.8 System Suitability Test	

- 7.9 Melt mass flow rate
- 7.10 Thermal stability test under hydrostatic conditions
- 8 Inspection rules
 - 8.1 Group approved
 - 8.2 Stereotypes test
 - 8.3 Factory inspection
 - 8.4 Type test
 - 8.5 Decision rules
- 9 Logo, packaging, transportation, storage
 - 9.1 Mark
 - 9.2 Packaging
 - 9.3 Transportation
 - 9.4 Storage

Foreword

The preparation of this standard mainly refers to GB/T 18742.1-2002 "Polypropylene piping systems for hot and cold water Part 1. General" GB/T 18742.2-2002 "hot and cold water polypropylene pipe system Part 2. Pipe" and other standards, with reference to GB/T 18475-2001 "Thermoplastics pressure pipes and fittings material classification and nomenclature overall use (design) coefficient", DIN8077.:1997 "polypropylene Pipe, "DIN8078.:1997" quality requirements and testing of polypropylene pipe (PP-H, PP-B, PP-R), "GB/T 18997.1-2003" Plastic composite pressure pipe Part 1. aluminum pipe aluminum pipe welding overlap "part of the standard content.

This standard is first formulated.

This standard is proposed by the Ministry of Construction standard quota research institute.

This standard by the Ministry of Water Supply and Drainage Products Standardization Technical Committee.

This standard was drafted. Wuhan Taurus Economic Development Co., Ltd.

1 Scope

This standard specifies the definition of random copolymer polypropylene (PP-R) plastic aluminum steady-state composite pipe (hereinafter referred to as PP-R aluminum-plastic steady-state pipe), symbols, Acronyms, Conditions of Use, Product Classification, Selection of S-Series, Material, Requirements, Test Methods, Test Rules and Marking, Packaging, Shipping Lose, store this standard applies to hot and cold water piping systems, including

industrial and civil hot and cold water, drinking water and hot water heating, central air conditioning systems.

This standard does not apply to fire extinguishing systems.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. All dated references, which are subsequently owned Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to reach an agreement based on this standard research Whether you can use the latest versions of these files. For undated references, the latest version applies to this standard.

Tensile test method for metallic materials at room temperature GB/T 228-2002 Plastics - Determination of density and relative density - Method of test GB/T 1033-1986 GB/T 2828.1-2003 Sampling procedures for sampling inspection - Part 1. batch acceptance inspection by acceptance quality limit (AQL) sampling plan GB/T 2918-1998 plastic sample conditioning and testing of the standard environment GB/T 3682-2000 Thermoplast melt mass flow rate and melt volume flow rate determination Part 4. Determination of melting point of crystalline polymers - Optical method Thermoplastics pipes for the conveyance of fluids - Resistance to internal pressure - Test method Thermoplastics pipes - Determination of the longitudinal retraction ratio GB/T 6671-2001 Plastics pipe dimensions measurement methods Thermoplastic pipe materials - General wall thickness gauge GB/T 10798-2001 Water supply polyethylene (PE) pipe GB/T 17219 drinking water distribution equipment and protective materials safety evaluation criteria Polypropylene piping systems for hot and cold water use - Part 1. General Polypropylene piping systems for hot and cold water GB/T 18742.2-2002 Polypropylene piping systems for hot and cold water use - Part 3. Fittings Thermoplastics pipes and fittings for hot and cold water systems GB/T 18991-2003 GB/T 18997.1-2003 Aluminum-plastic composite pressure pipe - Part 1. aluminum pipe lap welded aluminum-plastic pipe

3 Definitions, symbols and abbreviations

This standard uses the following definitions, symbols and abbreviations.

3.1.1 Random copolymer polypropylene (PP-R) plastic aluminum steady-state composite pipe

One kind of inner layer is PP-R, the outer layer is covered with aluminum layer and plastic protective layer, the layers are connected by hot melt adhesive to form a five-layer structure pipe (see

Figure 1).

Figure 1 random copolymer polypropylene (PP-R) plastic aluminum steady composite five-story structure diagram

3.1.2 Inner tube

Pressure-bearing layer of PP-R material, which is in direct contact with the medium being conveyed.

3.1.3 Aluminum layer

Using hot melt adhesive bonding method of molding, the aluminum layer through the hot melt adhesive and the inner tube and the outer layer composite adhesive bonding, to UV, Oxygen permeability, reduce the linear expansion coefficient and improve the safety of PP-R aluminum-plastic pipe steady.

3.1.4 Overlay

The plastic layer (PP-R or PE) exposed to the external environment functions primarily to protect the aluminum layer.

3.1.5 Inner layer

The affinity layer between the inner tube and the aluminum layer allows the inner tube to be intimately integrated with the aluminum layer.

3.1.6 Outer layer

The affinity layer, located between the aluminum layer and the overcoat, allows the aluminum layer to be intimately integrated with the overcoat.

3.1.7 Geometry Definition

The specified value of the outer diameter of the inner tube, in mm.

Measured value of cross-section outside diameter of pipe passing through any point in mm.

The value of the measured value of the outer circumference of any cross section of the tube divided by pi (~ 3.142) is accurate to 0.1 mm and the second non-decimal point Zero-digit carry.

The minimum average outer diameter.

The maximum value of the average outer diameter.