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

GB/T 18997.2-2020

Replacing GB/T 18997.2-2003

**Plastic/aluminum/ plastic composite pressure pipes - Part 2:
Composite pipes butt-welded by aluminum pipe**

铝塑复合压力管 第2部分：铝管对接焊式铝塑管

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Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and abbreviations	2
4.1 Symbol	2
4.2 Abbreviations	2
5 Classification, conditions of use and marking	3
5.1 Classification	3
5.2 Conditions of Use	3
5.3 Product marking	5
6 Material	5
6.1 Aluminum	5
6.2 Other raw materials	5
7 Requirements	5
7.1 Color	5
7.2 Appearance	6
7.3 Size	6
7.4 Radial tension of pipe ring	7
7.5 Composite strength	7
7.6 Air tightness and ventilation	8
7.7 Burst strength	8
7.8 Hydrostatic strength	8
7.9 Thermal stability under hydrostatic state	8
7.10 Degree of crosslinking	8
7.11 Chemical resistance	8
7.12 Gas component resistance performance	9
7.13 Hygienic performance	9
7.14 System adaptability	9
8 Test method	10
8.1 Test status adjustment	10
8.2 Appearance and color	10
8.3 Size	10

8.4 Radial tension of pipe ring	10
8.5 Composite strength	10
8.6 Air tightness and ventilation	11
8.7 Burst strength	11
8.8 Hydrostatic strength	11
8.9 Thermal stability under hydrostatic conditions	11
8.10 Degree of crosslinking	12
8.11 Chemical resistance	12
8.12 Gas component resistance performance	12
8.13 Hygienic performance	12
8.14 System suitability	12
9 Inspection rules	14
9.1 Inspection classification	14
9.2 Batching and grouping	14
9.3 Factory inspection	14
9.4 Type inspection	15
9.5 Type inspection	16
9.6 Judgment Rule	16
10 Marking, packaging, transportation and storage	16
10.1 Sign	16
10.2 Packaging	17
10.3 Transportation	17
10.4 Storage	17

Foreword

GB/T 18997 "Aluminum-plastic composite pressure pipe" is divided into two parts.

1. Aluminum pipe lap welded aluminum-plastic pipe;

2. Butt-welded aluminum-plastic pipe of aluminum pipe. This part is Part 2 of GB/T 18997. This section was drafted in accordance with the rules given in GB/T 1.1-2009. This part replaces GB/T 18997.2-2003 "Aluminum-plastic composite pressure pipe Part

2. Aluminum pipe butt welded aluminum-plastic pipe", and Compared with GB/T 18997.2-2003, the main technical changes are as follows:

---Modified the type of aluminum-plastic pipe and made further regulations on its application range (see Chapter 1, Chapter 1 of the.2003 edition);

---Added and updated relevant normative references (see Chapter 2, Chapter 2 of the.2003 edition);

---Modify the definitions of Type I Aluminum Plastic Pipe, Type II Aluminum Plastic Pipe, Type III Aluminum Plastic Pipe and Type IV Aluminum Plastic Pipe (see 3.2~3.5,.2003 edition 3.1.2~3.1.5);

---Added random copolymer polypropylene butt welding aluminum-plastic composite pressure pipe and related technical requirements (see Chapter 5 and Chapter 7);

---Modified the classification of butt welded aluminum-plastic pipes (see 5.1, 4.1 in the.2003 edition);

---Added the use condition level (see 5.2.1);

---The working conditions of butt welded aluminum-plastic pipes for cold water and hot and cold water are modified, and the design pressure is given according to the use condition level 1, 2, 4, and 5 (see 5.2.2, 4.1.1 of the.2003 version);

---Modified "long-term working temperature" to "design temperature" and "allowable working pressure" to "design pressure", and modified the aluminum plastic for gas The temperature value of the tube has increased the classification of compressed air (see 5.2.2, 5.2.3, and

1 Scope

GB/T 18997.2-2020 is the Chinese national standard on plastic/aluminum/ plastic composite pressure pipes - part 2: composite pipes butt-welded by aluminum pipe, in the field of rubber and plastic industries. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 19 November 2020 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 June 2021. Classification: ICS 83.140.30, CCS G33. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This part of GB/T 18997 specifies that the embedded butt welded aluminum pipe is used as the reinforced metal layer, and the inner and outer layers of plastic are combined by co-extrusion hot melt adhesive. Terms and definitions, symbols and abbreviations, classifications, conditions of use and markings for aluminum-plastic composite pressure pipes (abbreviated as butt-welded aluminum-plastic pipes) made of composite materials

Materials, requirements, test methods, inspection rules, signs, packaging, transportation and storage. This section applies to heat-resistant polyethylene butt-welded aluminum-plastic pipes, cross-linked polyethylene butt-welded aluminum-plastic pipes and random copolymer polypropylene used in cold and hot water distribution systems. Olefin butt-welded aluminum-plastic pipes are also suitable for polyethylene pairs for cold water, gas, compressed air and special fluid distribution systems whose working temperature is not higher than 40°C. Welded aluminum-plastic pipe and cross-linked polyethylene butt-welded aluminum-plastic pipe.

Note. Polyethylene butt-welded aluminum-plastic pipe, heat-resistant polyethylene butt-welded aluminum-plastic pipe, and cross-linked polyethylene butt-welded aluminum-plastic pipe are mechanically connected by internal sealing, and random copolymerization of polypropylene. The welded aluminum-plastic pipe adopts double-sided hot-melt socket connection.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article. For undated references, the latest version (including all amendments) applies to this document.

GB/T 228.1 Tensile Test of Metallic Materials Part

3 Terms and definitions

The following terms and definitions defined in GB/T 19278-2018 and GB/T 18997.1-2020 apply to this document.

3.1 Butt-welded by aluminum pipe composite pipe butt-welded by aluminum pipe An embedded metal layer is a butt welded aluminum alloy tube, the inner and outer layers are co-extruded plastics, and the adhesive layer is formed by hot melt adhesive between the layers.