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

GB/T 10546-2026

Replacing GB/T 10546-2013

**Rubber hoses and hose assemblies for liquefied petroleum gas
(LPG) in the liquid or gaseous phase and natural gas up to 2.5
MPa - Specification**

在2.5 MPa及以下压力下输送液态或气态液化石油气（LPG）和天然气的橡胶软管
及软管组合件 规范

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document supersedes GB/T 10546-2013 "Transportation of liquid or gaseous liquefied petroleum gas (LPG) and..." under pressures of 2.5 MPa and below.

The main technical changes are as follows.

-- Added hoses with nominal sizes of 10 and 13, and removed hoses with a nominal size of 12 (see 6.1, 2013 edition of 6.1).

--The requirement for hose concentricity has been increased (see 6.3);

--Requirements for hose length and tolerances have been added (see 6.4);

--Increased requirements for the permeability ratio of the inner lining and outer coating of the non-puncture hose (see Table 3);

--The maximum hardness requirement for the inner lining material has been increased (see Table 3);

--The test method for the maximum deformation coefficient of the hose outer diameter at the minimum bending radius has been changed (see Table 4, Table 4 in the 2013 edition).

--The test method for electrical properties of steel wire reinforced hoses has been changed (see Chapter 8, Chapter 8 in the 2013 edition).

--The requirements for marking hose assemblies have been changed (see 10.2, 2013 edition).

This document is modified to adopt ISO 2928:2021, "Transportation of liquid or gaseous petroleum gas (LPG) at pressures of 2.5 MPa (25 bar) and below".

Specifications for rubber hoses and hose assemblies for natural gas.

Compared with ISO 2928:2021, this document has undergone the following structural

adjustments.

--Chapter 5 of ISO 2928:2021 is amended to 5.1, 5.2 and 5.3.

The technical differences between this document and ISO 2928:2021, and the reasons therefor, are as follows.

--The normative reference GB/T 9881 replaced ISO 1382, and GB/T 7528 replaced ISO 8330 (see Chapter 3).

For use;

--ISO 10619-1 has been replaced with the normatively referenced GB/T 5565.1 (see 6.1 and Table 4) to increase operability;

--ISO 10619-2:2017 (see 6.1) has been replaced with the normatively referenced GB/T 9573, because ISO 10619-2 is for low-temperature flexibility.

The test method for stiffness measurement and the dimensional measurement method shall be GB/T 9573, with corrections to ISO 2928:2021, maintaining internal...

--ISO 4671 has been replaced with the normatively referenced GB/T 9573 (see 6.2 and 6.3) to increase operability;

--The normatively referenced GB/T 528 replaces ISO 37, and GB/T 9867-2008 replaces ISO 4649 and GB/T 3512.

Replaces ISO 188, GB/T 39693.2, ISO 48-2, GB/T 12585-2020, and ISO 6179:2017.

(See Table 3) to increase operability;

--ISO 1817 has been replaced with the normatively referenced GB/T 1690 (see Tables 3, A.1 and A.2) to adapt to my country's technical conditions, and has been expanded.

Increase operability;

--The normative reference GB/T 5563 replaces ISO 1402, GB/T 5567 replaces ISO 7233, and GB/T 14905 replaces...

ISO 8033 and GB/T 24134-2009 replaced ISO 7326, and GB/T 5565.2-2017 replaced ISO 10619-2.

2017 (see Table 4), increased operability;

--ISO 8031 has been replaced with the normatively referenced GB/T 9572 (see Table 4 and Chapter 8) to increase operability;

--Added length requirements for hoses and hose assemblies, and clarified the measurement methods for length and tolerances (see 6.4).

It is more practical.

The following editorial changes have been made to this document.

--To align with existing standards, the standard title has been changed to "Transportation of Liquid or Gaseous Liquefied Petroleum Gas at Pressures of 2.5 MPa and Below".

Specifications for Rubber Hoses and Hose Assemblies for LPG and Natural Gas;

--The representation of the "bar" unit has been removed, and only the representation of the "MPa" unit has been retained.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Petroleum and Chemical Industry Federation.

This document is under the jurisdiction of the National Technical Committee on Standardization of Rubber and Rubber Products (SAC/TC 35).

Equipment Co., Ltd., Yiwei Fluid Systems (Shandong) Co., Ltd., Shandong Yuelong Rubber & Plastics Technology Co., Ltd., Hengshui Baili Rubber Products Co., Ltd.

The company, Qingdao Xiangliu Rubber Hose Co., Ltd., Hebei Sanye Fluid Technology Co., Ltd., Hebei Siberli Special Rubber Co., Ltd., Guangdong Tai'en Fluid Control Equipment Co., Ltd., Gaoke Rubber & Plastics Industry Co., Ltd., Hebei Gaoxin Rubber & Plastics Pipe Industry Co., Ltd., Shenyang Rubber Research & Design Institute Institute Limited Company.

1 Scope

This document specifies the requirements for rubber hoses and hose assemblies used for conveying liquid or gaseous liquefied petroleum gas (LPG) and natural gas.

This document applies to hoses operating at pressures between vacuum and a maximum of 2.5 MPa, with a temperature range of -30°C to 70°C, or cryogenic hoses.

(represented as -LT) refers to rubber hoses and hose assemblies with a temperature range of -50 °C to 70 °C.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are listed below.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

GB/T 528 Determination of tensile stress-strain properties of vulcanized or thermoplastic rubber (GB/T 528-2009, ISO 37).

2005, IDT)

GB/T 1690 Test methods for resistance to liquids of vulcanized or thermoplastic rubber (GB/T 1690-2010, ISO 1817:2005, MOD) GB/T 3512 Accelerated aging and heat resistance tests of vulcanized rubber or thermoplastic rubber in hot air (GB/T 3512-2026, ISO 188.

2023, IDT)

GB/T 5563 Test methods for hydrostatic pressure of rubber and plastic hoses and hose assemblies (GB/T 5563-2025, ISO 1402.

2021, IDT)

GB/T 5565.1 Measurement of flexibility and stiffness of rubber and plastic hoses and unreinforced hoses - Part 1: Room temperature bending test (GB/T 5565.1-2017, ISO 10619-1:2011, IDT) GB/T 5565.2-2017 Measurement of flexibility and stiffness of rubber and plastic hoses and unreinforced hoses - Part 2: Below room temperature Bending test (ISO 10619-2:2011, IDT) GB/T 5567 Determination of vacuum resistance of rubber and plastic hoses and hose assemblies (GB/T 5567-2013, ISO 7233.

2006, IDT)

GB/T 7528 Terminology for rubber and plastic hoses and hose assemblies (GB/T 7528-2025, ISO 8330:2022, IDT) GB/T 9572 Determination of resistivity and conductivity of rubber and plastic hoses and hose assemblies (GB/T 9572-2013, ISO 8031.

2009, IDT)

GB/T 9573 Rubber and plastic hoses and hose assemblies - Methods for measuring hose dimensions and hose assembly length (GB/T 9573-2013, ISO 4671:2007, IDT) GB/T 9867-2008 Determination of abrasion resistance of vulcanized or thermoplastic rubber (rotary roller abrasion test) (ISO 4649.

GB/T 9881 Rubber Terminology (GB/T 9881-2026, ISO 1382:2025, MOD)