

ICS 91.140
CCS P45



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

GB 41317-2024

Replacing GB/T 41317-2022

**Stainless steel corrugated tubes for the connection of gas
appliances**

燃气用具连接用不锈钢波纹软管

Issued on: April 29, 2024

Implemented on: August 1, 2024

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

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1 Scope

GB 41317-2024 is the Chinese national standard on stainless steel corrugated tubes for the

connection of gas appliances, in the field of construction materials and building. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 29 April 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 August 2024. Classification: ICS 91.140, CCS P45. 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 document specifies the classification, specifications and models of stainless steel corrugated hoses for connecting gas appliances; their materials, appearance, structure and dimensions; performance requirements; test methods; inspection rules; marking and installation and operation instructions; packaging, transportation, storage. This document applies to stainless steel corrugated hoses used for connecting gas- burning appliances or gas equipment, with a nominal size not exceeding DN32 and a maximum working pressure of

0.01 MPa, for conveying town gas. This document does not apply to stainless steel corrugated hoses used for connecting media containing dimethyl ether.

2 Normative references

The following documents, through normative references in the text, constitute essential provisions of this document. For dated references, only the edition cited applies; for undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 191 Packaging - Pictorial marking for handling of goods

GB/T 196 General purpose metric screw threads - Basic dimensions

GB/T 1220 Stainless steel bars

GB/T 2828.1 Sampling procedures for inspection by attributes - Part

1.Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection

GB/T 3280 Cold rolled stainless steel plate, sheet and strip

GB/T 4240 Stainless steel wires

GB/T 5231 Designation and chemical composition of wrought copper and copper alloys

GB/T 7306.1 Pipe threads with 55 degree thread angle where pressure-tight joints are made on the threads - Part

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Stainless steel corrugated tubes for the connection of gas appliances A stainless steel corrugated hose with a fixed length and a coating, having connecting joints at both ends.

Note. Abbreviated as "corrugated hose".

3.2 Tubular blank A stainless steel tube with longitudinal welds or seamless sections used for manufacturing corrugated tubes.

3.3 Corrugated tube A tubular shell with corrugated busbars.

3.4 Protecting coat A protective coating used to protect stainless steel corrugated tubes.

4.1 Classification

4.1.1 Corrugated hoses are classified according to connection characteristics as follows:

- a) Ordinary corrugated hose. Used only for connecting gas pipelines to stationary gas appliances or equipment, designated RLB;
- b) Ultra-flexible corrugated hose. Can be used to connect gas pipelines or bottled liquefied petroleum gas regulators to gas appliances or equipment, designated CRLB.

4.1.2 Corrugated hoses are classified according to application as follows:

- a) Corrugated hose for gas meter connection. designated B;
- b) Corrugated hose for connecting gas appliances or equipment other than gas meters. designated A.

4.1.3 Corrugated hoses are classified according to the shape of the corrugations as follows:

- a) Spiral corrugated hose. The corrugations are spiral-shaped, designated L;
- b) Annular corrugated hose. The corrugations are closed circular rings, designated H.

4.1.4 Corrugated hoses are classified according to the connection method of both ends as follows:

- a) Threaded connection corrugated hose. The corrugated hose with threaded connections at both ends, designated S, see Figure 1 for an example;

5 Materials, appearance, structure, dimensions

5.1 Materials The material of the corrugated hose shall conform to the specifications in Table 1 or be other materials with equivalent or higher performance.

5.2 Appearance

5.2.1 The inner and outer surfaces of the connector shall be free of cracks and pinholes.

5.2.2 The sealing gasket shall have a regular appearance, free from cracks and burrs.

5.2.3 The protecting coat of the corrugated hose shall be yellow; the surface shall be free from scratches, discoloration, cracks.

5.3 Structure and dimensions

5.3.1 The protecting coat shall completely cover the corrugated portion of the hose.

5.3.2 The wall thickness of the tube blank shall meet the following requirements.

a) The wall thickness of the tube blank for ordinary corrugated hoses shall not be less than

0.20 mm;

b) The wall thickness of the tube blank for ultra-flexible corrugated hoses shall not be less than

0.12 mm.

5.3.3 The wall thickness of the joint shall meet the following requirements.

a) When the raw material is leaded brass, the wall thickness of the joint shall not be less than

b) When the raw material is stainless steel, the wall thickness of the joint shall not be less than

5.3.4 The thread of the connector shall meet the following requirements.

a) When a gasket is used for sealing, the connector thread shall conform to the provisions of GB/T 7307 or GB/T 196; the thread engagement length shall not be less than 4 times the pitch length;

b) When a threaded seal is used, the connector thread shall conform to the provisions of GB/T 7306.1 or GB/T 7306.2.

5.3.5 The length tolerance of the corrugated hose shall conform to the provisions of Table 2; the total length shall not exceed 2000 mm.