

ICS 23.040.70

CCS G 42



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

GB/T 5565.1-2017

Replacing GB/T 5565-2006

**Rubber and plastics hoses and tubing -- Measurement of
flexibility and stiffness -- Part 1: Bending tests at ambient
temperatures**

Issued on: September 7, 2017

Implemented on: April 1, 2018

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China, Standardization
Administration of the People's Republic of China**

Table of Contents

Foreword

2006 compared to the main technical changes are as follows.

1 Scope

2 Normative references

3 Terms and definitions

Foreword

GB/T 5565 "rubber and plastic hoses and non-reinforced hose flexible and stiffness measurement" is divided into three parts.

--- Part 1. Room temperature bending test;

--- Part 2. Bending test below room temperature;

--- Part 3. High temperature and low temperature bending test.

This section GB/T 5565 Part 1.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This Part replaces GB/T 5565-2006 "Rubber or plastic hose and non-reinforced hose bending test." And GB/T 5565-

2006 compared to the main technical changes are as follows.

--- Modify the scope (see Chapter 1,.2006 edition Chapter 1);

--- Added terms and definitions (see Chapter 3);

--- Method A is modified as Method A1 (see Chapter 4, Chapter 3 of the.2006 edition);

--- Added method A2 (see Chapter 5);

--- Method B has been revised (see Chapter 6, Chapter 4 of the.2006 edition);

--- Added method C1 (see Chapter 7);

--- Method C2 has been added (see Chapter 8).

This section uses the translation method identical with ISO 10619-1.2011 "rubber and plastic hoses and non-reinforced flexible hose and stiffness test

Quantity Part 1. Room temperature bending test. "

The documents of our country that are consistent with the corresponding international documents that are normative references in this section are as follows.

--- GB/T 2941-2006 rubber physical test sample preparation and conditioning procedures (ISO 23529..2004, IDT)

--- GB/T 7528-2011 Rubber and plastics hoses and hose assembly terms (ISO 8330.2007, IDT)

--- GB/T 9573-2013 Rubber and plastics hoses and hose assemblies Hose size and hose assembly length measurement method (ISO 4671.2007, IDT)

This part is proposed by China Petroleum and Chemical Industry Federation.

This part of the National Rubber and Rubber Products Standardization Technical Committee (SAC/TC35) centralized.

This part of the drafting unit. Tianjin Ge Tesi Testing Equipment Technology Development Co., Ltd., Shenyang Rubber Research Institute Co., Ltd..

1 Scope

GB/T 5565 provisions of this part at room temperature from the hose or non-reinforced hose deformation measured at the rubber and plastic hose and non-

Three Ways to Enhance Hose Flexibility (Methods A1, B, and C1) and to bend rubber or plastic or non-reinforced hose to a specified radius

, Two methods of measuring the stiffness by measuring the bending force (methods A2 and C2).

Methods A1 and A2 apply to rubber and plastic hoses with internal diameters less than or equal to 80 mm and unreinforced hoses.

Method A1 Compression hoses are made using two splints and the flexibility of the hose or non-reinforced hose is measured by measuring the decrease in OD.

Method A2 Flattening a hose or non-reinforced hose with two cleats gives a way to measure the force required to reach a specified bend radius.

Method B applies to rubber and plastic hoses with inner diameter less than or equal to 100 mm and non-reinforced hoses. Given the evaluation of the hose and non-increase

Strong hose bending around the mandrel when the state method. The chosen mandrel diameter can be the minimum bend radius of a hose or non-reinforced hose. Measured

The OD reduction can be used to measure the flexibility of a hose or non-reinforced hose. The tested hose or non-reinforced hose may not be under pressure, under pressure or

under pressure

Empty, if required, for elbows, may not be pressurized, stressed or under vacuum at bending or non-bending.

Methods C1 and C2 apply to rubber and plastic hoses with inner diameter greater than or equal to 100 mm and non-reinforced hoses.

Method C1 gives a method of measuring flexibility when the hoses and unreinforced hoses are bent to the minimum bend radius.

Method C2 gives a method of determining stiffness when the hose and non-reinforced hose are bent to the minimum bend radius.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

ISO 4671 Rubber and plastics hoses and hose assemblies Hose sizes and hose assemblies Length measurement methods (Rubber and plastic hoses and hose assemblies-Method of measurement of the dimensions of hoses and the lengths of hose assemblies)

ISO 8330 Rubber and plastics hoses and hose assemblies terms (Rubber and plastic hoses and hose assemblies-Vocabulary)

ISO 23529 Rubber physical test methods - Sample preparation and conditioning procedures (Rubber-General procedures for preparing and conditioning test pieces for physical test methods)

3 Terms and definitions

ISO 8330 defined and the following terms and definitions apply to this document.