

ICS 91.120.20

CCS A 59



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

GB/T 35426.1-2017

**Acoustics -- Determination of dynamic stiffness -- Part 1:
Materials used under floating floors in dwellings**

声学 动刚度测定 第1部分：普通浮筑楼板下的弹性材料

(English Translation)

Issued on: December 29, 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**

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Foreword

GB/T 35426 "Determination of acoustic dynamic stiffness" is divided into the following two parts.

--- Part 1. Ordinary floating floor under the elastic material;

--- Part 2. Special floating floor under the elastic material.

This section GB/T 35426 Part 1.

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

This section uses the translation method identical with ISO 9052-1:1989 "Acoustics Determination of dynamic stiffness Part 1. Ordinary floating floor under the floor Elastic material ".

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 11349.2-2006 vibration and shock - Determination of mechanical admittance - Part

2 - Single point translation with exciter Incentive measurements (ISO 7626-2:1990, IDT)

--- GB/T 25077-2010 Acoustic porous sound-absorbing material flow resistance measurement (ISO 9053:1991, IDT) this section made the following editorial changes.

--- Deleted in 7.3 on "ISO 7626-5 vibration and shock mechanical admittance test to determine Part 5. Impact excitation Act "upcoming article footnote, at the same time GB/T 11349.3-2006 Vibration and impact mechanical admittance test is indeed Set Part 3. Impact excitation method (ISO 7626-5:1994, IDT) is included in the reference.

This section is proposed by the Chinese Academy of Sciences.

This part of the National Acoustic Standardization Technical Committee (SCA/TC17) centralized.

This section drafted by. China Academy of Building Research, South China University of Technology, Institute of Acoustics, Chinese Academy of Sciences, Beijing Ke Aoke acoustics Company, Tsinghua University.

1 Scope

This part of GB/T 35426 specifies the method for the determination of dynamic stiffness of elastic materials under ordinary floating floor. Dynamic stiffness is decided to float One of the parameters for building the sound insulation performance of the floor.

This section applies to the determination of flat surface (see 6) and the continuous use of floating floor slab per unit area of dynamic stiffness; not applicable in the determination of load is less than 0.4kPa1) (such as wall lining material) or load greater than 4kPa1) (such as under seat material) of the elastic material.

1) 1Pa = 1N/m²

This section is mainly used to compare the characteristics of similar samples of similar materials products.

The relevant provisions concerning the flow resistivity of the elastomeric material under test are given in 8.2.

Note 1: Generally used for wall lining materials, such as polystyrene or mineral fibers, the static preload has little effect on the dynamic stiffness. According to this section at 2kPa static the dynamic stiffness values measured at the state load are 10% to 20% different from those obtained under a very low static preload.

Note 2: Part 2 of GB/T 35426 specifies the method for the determination of the dynamic stiffness of elastic materials under special floating floors (high static loads).

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 7626-2 Vibration and Shock Mechanical Admittance Test Determination Part 2.
Excitation with a single-point translational excitation measurement
(Vibration and shock-Experimental determination of mechanical mobility-Part 2:
Measurements using single-point translation excitation with an attached vibration exciter) ISO
9053 Acoustics-Materials Acoustic Applications Materials Flow Resistance Measurement
(Acoustics-Materials for acoustical applications-Determination of air flow resistance)

3 Terms and definitions

The following terms and definitions apply to this document.

Dynamic Stiffness

Dynamic force amplitude and dynamic amplitude ratio.

This section uses the dynamic stiffness per unit area s' , expressed by equation (1), the unit is Newton per cubic meter (N/m³).

δ

In the formula.

F --- vertical dynamic force on the specimen, in Newtons (N);

S --- specimen area, in square meters (m²);

δ --- elastic material thickness of the dynamic changes in units of meters (m).

This section uses the following parameters and symbols.