

UDC



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

中华人民共和国国家标准

P

GB 50118-2010

**Code for design of sound insulation of civil
buildings**

民用建筑隔声设计规范

Issued on August 18, 2010

Implemented on June 01, 2011

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

**Ministry of Housing and Urban-Rural Development of the
People's Republic of China**

National Standard of the People's Republic of China

Code for design of sound insulation of civil buildings

GB 50118 - 2010

**Prepared by: Ministry of Housing and Urban-Rural Development of the People's
Republic of China**

**Approved by: Ministry of Housing and Urban-Rural Development of the People's
Republic of China**

Date of Enforcement: June 1, 2011

China Building Industry Press

2010 Beijing

**The Ministry of Housing and Urban-Rural Development of the People's
Republic of China
Announcement**

No. 744

**Announcement about issuance of national standard *Code for
Design of Sound Insulation of Civil Buildings***

The *Code for Design of Sound Insulation of Civil Buildings* is approved as the national standard currently with the No. GB 50118 – 2010, and is implemented since June 1, 2011. Where, Sub-clause 4.1.1, 4.2.1, 4.2.2, 4.2.5 are the mandatory provisions and should be implemented strictly. The original *Code for Design of Sound Insulation of Civil Buildings* GBK 118-88 is abolished simultaneously.

This standard is issued by China Building Industry Press upon the authorization of our Standard Rating Institute.

The Ministry of Housing and Urban-Rural Development of the People's Republic of

China

August 18, 2010

Foreword

This code is revised by China Academy of Building Research together with relevant units based on the *Code for Design of Sound Insulation of Civil Buildings* GBJ 118 – 88 according to the requirements of Notice about Printing and Issuance of Preparation, Revision Plan of Engineering Construction National Standard of 2004 (Construction Standard [2004] No.67) of original Ministry of Construction.

During the process of preparing this code, the preparation group considered the current situation of civil buildings, acoustic requirements of the people for the various civil buildings, development level of social economy, development level of architectural acoustic technology according to the collected opinions of noise, sound insulation, sound absorption aspects of various civil buildings, and determined the final document after examination based on the wide range of opinions.

This code includes 9 chapters and 1 annex, and the main technical contents include the general provisions, terminology and symbol, general layout noise control design, residential building, school building, hospital building, hotel building, office building, commercial building, interior noise level measurement method, etc.

The main revision contents of this code are:

1. Add the contents about design of sound insulation, noise reduction of office, commercial buildings.
2. Make the appropriate adjustment for the basic requirements of part of interior allowable noise level standard, sound insulation standard to the more stringent direction.
3. The interior allowable noise level standard value is the standard value under the conditions of opening window originally, and the standard value in this code is under the conditions of closing window.

The boldface provisions in this code are the mandatory provisions, and must

be implemented strictly.

This code is managed by the Ministry of Housing and Urban-Rural Development and the mandatory provisions are also interpreted by it, and the specific technical contents should be interpreted by the China Academy of Building Research. In the process of implementation, if need to revise or supplement, please mail the opinions or relevant information to the China Academy of Building Research (Building Physics Institute, No.19 Chegongzhuang Street, Xicheng District, Beijing, post code: 100044)

Main preparation units, participant units and main drafters, main reviewers:

Main preparation units: China Academy of Building Research

Participant units: Tongji University

China IPPR International Engineering Corporation

Beijing Institute of Architectural Design

Southeast University

Taiyuan University of Technology

Tsinghua University

University of Hong Kong

Owens Corning (China) Investment Co., Ltd.

Beijing New Building Material Co., Ltd.

Puyang Lvhuanyu Chemical Co., Ltd.

South China University of Technology

China Southeast Architectural Design and Research Institute
Co., Ltd.

Hubei Provincial Academy of Building Research and Design

Harbin Institute of Technology

Chongqing University

Main drafters: Lin Jie, Tan Hua, Jiang Guorong, Huang Xiniu, Zhou Qian,
Wang Zheng, Liu Xiaotu, Lu Fenghua, Yan Xiang, Xu Chun, Zou
Guangrong, Liu Shaoyu, Wang Zhi, Kong Qingguo, Wang Futian,
Zhang Jianxun, Yan Guojun

Main reviewers: Cheng Mingkun, Li Ang, Lv Yuheng, Zhang Jiachen, Xie
Chengmin, Wu Dasheng, Lin Jianping, Li Xiaokuan, Wang
Junxian, Ru Lvjing

Contents

1 General Provision	1
2 Terms and Symbols	2
2.1 Terms	2
2.2 Symbols	3
3 Planning of Noise Reduction	4
4 Dwelling	6
4.1 Limits for indoor noise level	6
4.2 Criteria of sound insulation	6
4.3 Design of sound insulation and noise reduction	11
5 School	14
5.1 Limits for indoor noise level	14
5.2 Criteria of sound insulation	14
5.3 Design of sound insulation and noise reduction	18
6 Hospital	20
6.1 Limits for indoor noise level	20
6.2 Criteria of sound insulation	21
6.3 Design of sound insulation and noise reduction	25
7 Hotel	28
7.1 Limits for indoor noise level	28
7.2 Criteria of sound insulation	28
7.3 Design of sound insulation and noise reduction	31
8 Office-building	34
8.1 Limits for Indoor Noise Levels	34
8.2 Criteria of sound insulation	34
8.3 Design of sound insulation and noise reduction	37
9 Commercial building	40
9.1 Limits for Indoor Noise Levels	40
9.2 Indoor sound absorption	40
9.3 Criteria sound insulation	40
9.4 Design of sound insulation and noise reduction	43
Annex A Method for measuring indoor noise level	44
Explanation of Wording in This Code	45
List of Quoted Standards	46
Addition: Explanation of Provisions	56

1 General Provision

1.0.1 In order to reduce the impact of noise on the civil buildings, and ensure the good sound environment in civil building, formulate this code.

1.0.2 This code is applicable to the sound insulation, sound absorption, noise reduction design of main houses of new constructed, renovated and expanded dwelling, school, hospital, hotel, office building and commercial and total six classes of buildings in the towns of the whole country. The rooms in other classes of buildings should use the corresponding provisions of this code according to their use functions.

1.0.3 The interior allowable noise level in this code should be A-weighted sound pressure level as the evaluation variable. The interior allowable noise level in this code should be the standard value within the daytime and night time period under the state of closing window. For the rooms in hospital buildings which should be used under state of opening window, the standard value of interior allowable noise level under the state of opening window should be same with the standard value of interior allowable noise level under the state of closing window. The time corresponding with the daytime and night time period are separately: daytime, 6:00 – 22:00; night time, 22:00 – 6:00; or comply with the regulations of local people's government. The measurement of interior noise level should be implemented according to Annex A in this code.

1.0.4 The sound insulation, noise reduction design of civil buildings not only should comply with the regulations of this code, but also should meet the regulations of current national relevant standards.

完整版本请在线下单/Order Checks Online for Full Version

联系我们/or Contact :

TEL: 400-678-1309

QQ: 19315219 | Skype: Lancarver

Email : info@lancarver.com

<http://www.lancarver.com>

线下付款方式 :

I. 对公账户 :

单位名称 : 北京文心雕语翻译有限公司

开户行 : 中国工商银行北京清河镇支行

账 号 : 0200 1486 0900 0006 131

II. 支付宝账户 : info@lancarver.com

III. Paypal: info@lancarver.com

注: 付款成功后, 请预留电邮, 完整版本将在一个工作日内通过电子 PDF 或 Word 形式发送至您的预留邮箱, 如需索取发票, 下单成功后的三个工作日内安排开具并寄出, 预祝合作愉快!

NOTE All documents on the store are in electronic Adobe Acrobat PDF format, there is not sell or ship documents in hard copy. Mail the order and payment information to info@lancarver.com, you will shortly receive an e-mail confirming your order.

