

ICS 13.140
CCS Z52



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

GB 12523-2025

Replacing GB 12523-2011

Emission standard for construction noise

建筑施工噪声排放标准

Issued on: December 2, 2025

Implemented on: January 1, 2026

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

Table of Contents

Foreword

1 Application scope

2 Normative references

3 Terms and definitions

4 Noise emission limits

5 Monitoring requirements for noise emission

6 Evaluation of measurement results

7 Implementation and supervision

Foreword

This document was issued on 2 December 2025 by the State Administration for Market Regulation; Standardization Administration of the PRC and takes effect on 1 January 2026.

It is a GB standard without the /T suffix: compliance is mandatory in China.

The document runs to 15 pages in translation. The identification, the dates, the table of contents and the clauses reproduced on this page are taken from the standard itself.

It replaces GB 12523-2011, which is superseded.

1 Scope

GB 12523-2025 is the Chinese emission standard for construction noise, effective 1 January 2026. Construction noise is the most complained-about environmental nuisance in Chinese cities, and this standard is what a complaint is judged against: it sets the emission limits for construction noise around noise-sensitive buildings, together with the requirements for monitoring and evaluation and the rules for implementation and supervision. It applies to the management, evaluation and control of construction noise from building works, municipal works, and civil engineering and their ancillary facilities, and it defines the quantities the judgement rests on, the A-weighted sound pressure level and the equivalent continuous A-weighted sound level over a stated measurement period. The 2025 edition replaces GB 12523-2011 and brings in the automatic monitoring of construction noise, now standard practice on urban sites in China. For a contractor, a developer or a site manager, this is the limit an inspection measures against.

This standard specifies the emission limits for construction noise around noise-sensitive buildings, as well as the requirements for monitoring and evaluation, implementation and

supervision of such noise.

This standard applies to the management, evaluation, and control of emission of construction noise, including but not limited to buildings, municipal, telecommunications, transportation, water conservancy, and power constructions. This standard does not apply to the regulation of noise emissions generated during emergency maintenance or rescue operations.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the normative document (including any amendments) applies. For other documents that are abolished, revised or revised by new documents, the new ones shall apply to this standard.

GB/T 3785.1 Electroacoustics - Sound level meters - Part 1: Specifications

GB/T 15173 Electroacoustics - Sound calibrators

HJ 706 Technical Specifications for Environmental Noise Monitoring Correction for measured noise level

HJ 1402 Technical specification for automatic monitoring of construction noise

3 Terms and definitions

For the purposes of this standard, the following term and definition apply:

3.1

construction

construction of various types of building structures, civil engineering works, and their ancillary facilities, as well as the installation of supporting lines, pipelines and equipment, later-stage activities such as architectural decoration and finishing, building demolition, site preparation, and other construction-related operations, excluding interior decoration activities in buildings that have already been completed and delivered for use

3.2

construction noise

noise generated during construction that interferes with the surrounding living environment

3.3

A-weighted sound pressure level

sound pressure level measured with A-weighted network, expressed by L_A , in dB(A)

3.4

equivalent continuous A-weighted sound pressure level

equivalent sound level for short, energy average of the A-weighted sound level over a specified measurement time T , denoted as $L_{Aeq,T}$ (abbreviated as L_{eq}) and expressed in dB(A) Unless otherwise specified, all noise values in this standard refer to the equivalent sound level.

According to the definition, the equivalent sound level is expressed as:

where,

L_{eq} - equivalent sound level;

L_A - instantaneous A-weighted sound level at time t ;

T - specified measurement time period.

3.5

boundary of construction site

boundary of construction site, which is either approved by the relevant competent authority or the actual area used during the construction process

3.6

noise-sensitive buildings

buildings that require a quiet environment, such as those used for residence, scientific research, medical and health services, cultural education, office use by government agencies and organizations, social welfare, etc.

3.7

maximum sound level

highest A-weighted sound level measured within the specified measurement period, denoted as L_{Amax} and expressed in dB(A)

3.8

day-time, night-time

according to the Noise Pollution Prevention and Control Law of the People's Republic of China, "night-time" refers to the period from 10:00 p.m. to 6:00 a.m. the following day. Municipal governments with districts or higher-level people's governments may specify different start and end times for night-time within their respective administrative regions, and the night-time duration remains eight hours

"Day-time" refers to all periods other than the night-time period.

3.9

background noise

noise emitted by all noise sources other than the noise source being measured

3.10

automatic monitoring system of construction noise

system that continuously and automatically monitors construction noise in an unattended manner, while performing real-time statistical analysis, transmission, and storage of noise data. It typically consists of one or multiple noise monitoring substations, supporting equipment (such as meteorological data collectors, audio/video capture devices, etc.), and a noise monitoring management platform

4 Noise emission limits

4.1 During construction, the equivalent sound level of noise at the site boundary shall not exceed the emission limits specified in Table 1.

Table 1 Noise emission limits for boundary of construction site

Unit: dB(A)

Day-time Night-time

70 55

4.2 The maximum sound level of night-time noise at the site boundary shall not exceed the limits specified in Table 1 by more than 15 dB(A).

4.3 When noise emission from the source cannot be measured at the site boundary, measurements shall be taken outdoors at noise-sensitive buildings. The emission limits specified in 4.1 and 4.2 shall serve as the basis for evaluation.

4.4 When the site boundary is too close to noise-sensitive buildings and outdoor measurements do not meet the requirements, measurements shall be taken indoors within the noise-sensitive buildings. The corresponding limits specified in 4.1 and 4.2, reduced by 10 dB (A), shall serve as the basis for evaluation.