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**BS 5228-1:2009+A1:2014**



**BSI Standards Publication**

# **Code of practice for noise and vibration control on construction and open sites – Part 1: Noise**

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Published by BSI Standards Limited 2014

ISBN 978 0 580 77749 3

ICS 17.140.20; 91.200

The following BSI references relate to the work on this standard:  
Committee reference B/564/1  
Drafts for comment 08/30141420 DC, 13/30258085 DC

### Publication history

First published as BS 5228, May 1975  
First published as BS 5228-1, BS 5228-2 and BS 5228-3, May 1984  
Second edition of BS 5228-1, BS 5228-2 and BS 5228-3, May 1997  
First edition of BS 5228-4, January 1986  
Second edition of BS 5228-4, May 1992  
First edition of BS 5228-5, November 1997  
Present (third) edition in two parts, December 2008

### Amendments issued since publication

Date	Text affected
February 2014	A1. See Foreword

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### Summary of pages

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### Publishing information

This part of BS 5228 is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 1 January 2009. It was prepared by Subcommittee B/564/1, *Noise control working group*, under the authority of Technical Committee B/564, *Noise control on construction and open sites*. A list of organizations represented on this committee can be obtained on request to its secretary.

### Supersession

Together with BS 5228-2:2009, this part of BS 5228 supersedes BS 5228-1:1997, BS 5228-2:1997, BS 5228-3:1997, BS 5228-4:1992 and BS 5228-5:1997, which are withdrawn.

BS 5228-1:2009+A1:2014 supersedes BS 5228-1:2009, which is withdrawn.

### Relationship with other publications

BS 5228 is published in two parts:

- Part 1: *Noise*;
- Part 2: *Vibration*.

BS 6164 gives guidance on occupational health issues relevant to tunnelling.

### Information about this document

This British Standard refers to the need for the protection against noise and vibration of persons living and working in the vicinity of, and those working on, construction and open sites. It recommends procedures for noise and vibration control in respect of construction operations and aims to assist architects, contractors and site operatives, designers, developers, engineers, local authority environmental health officers and planners.

Noise and vibration can cause disturbance to processes and activities in neighbouring buildings, and in certain extreme circumstances vibration can cause or contribute to building damage.

Noise and vibration can be the cause of serious disturbance and inconvenience to anyone exposed to it and in certain circumstances noise and vibration can be a hazard to health. Attention is drawn to the legislation summarized in Annex A.

BS 5228-1:2009 was a full revision of this part of BS 5228, and introduced the following principal changes:

- restructuring of the standard into two parts, one dealing with noise and one with vibration;
- updating of information relating to legislative requirements;
- updating of information relating to methods and equipment.

Text introduced or altered by Amendment No.1 is indicated in the text by tags  $\boxed{A1}$   $\langle A1 \rangle$ . Minor editorial changes are not tagged.

*NOTE* Copyright is claimed in Tables C.1 to C.11. The copyright holder is the Department for Environment, Food and Rural Affairs (Defra), Nobel House, 17 Smith Square, London SW1P 3JR.

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As a code of practice, this part of BS 5228 takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

Any user claiming compliance with this part of BS 5228 is expected to be able to justify any course of action that deviates from its recommendations.

### **Presentational conventions**

The provisions in this standard are presented in roman (i.e. upright) type. Its recommendations are expressed in sentences in which the principal auxiliary verb is "should".

*Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.*

### **Contractual and legal considerations**

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

**Compliance with a British Standard cannot confer immunity from legal obligations.**

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This part of BS 5228 gives recommendations for basic methods of noise control  $\boxed{A_1}$  relating to construction sites, including sites where demolition, remediation, ground treatment or related civil engineering works are being carried out, and open sites,  $\boxed{A_1}$  where work activities/operations generate significant noise levels, including industry-specific guidance.

The legislative background to noise control is described and recommendations are given regarding procedures for the establishment of effective liaison between developers, site operators and local authorities.

This part of BS 5228 provides guidance concerning methods of predicting and measuring noise and assessing its impact on those exposed to it.

## 2 Normative references

The following referenced documents are indispensable for the application 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.

BS 4727-3:Group 08, *Glossary of electrotechnical, power, telecommunication, electronics, lighting and colour terms – Part 3: Terms particular to telecommunications and electronics – Group 08: Acoustics and electroacoustics*

BS 7580-1:1997, *Specification for the verification of sound level meters – Part 1: Comprehensive procedure*

BS 7580-2:1997, *Specification for the verification of sound level meters – Part 2: Shortened procedure for type 2 sound level meters*

$\boxed{A_1}$  BS EN 60942:2003, *Electroacoustics – Sound calibrators*

BS EN 61672-1:2013, *Electroacoustics – Sound level meters – Part 1: Specifications*

BS EN 61672-3:2013, *Electroacoustics – Sound level meters – Part 3: Periodic tests*  $\boxed{A_1}$

## 3 Terms and definitions

For the purposes of this part of BS 5228, the definitions given in BS 4727-3:Group 08 and the following apply.

*NOTE* Where applicable, the definitions are consistent with those given in BS 7445-1, BS 7445-2 and BS 7445-3.

### 3.1 activity $\boxed{A_1}$ $L_{Aeq,T}$ $\boxed{A_1}$

*NOTE* The activity might involve the operation of more than one item of plant.

value of the equivalent continuous A-weighted sound pressure level determined at a distance of 10 m from, and over the period of, a given activity

### 3.2 air overpressure

*NOTE* Air overpressure can be quantified either as a pressure or as a level in linear (unweighted) decibels (dB).

airborne pressure waves generated by blasting, produced over a range of frequencies including those which are audible and those which are below the lower end of the audible spectrum