

Hea05

Acoustic performance

Industrial, retail, prisons and other buildings

Actions:

- i. Complete post-construction testing for acoustic performance
- ii. Appoint a Suitably Qualified Acoustician if necessary, to define a bespoke set of performance requirements

i. Acoustic performance

The building should meet the **appropriate performance standards** and testing requirements for the acoustic principles of:

- a. Sound insulation
- b. Indoor ambient noise level
- c. Room acoustics

Industrial, Retail, Prisons and Other building types	
First credit - Sound insulation	
Criteria	The sound insulation between rooms and other occupied areas complies with the performance criteria given in Section 7 of BS 8233:2014. Alternatively, propose performance standard based on demonstrably best practice.
Testing requirement	A programme of pre-completion acoustic testing is carried out by a compliant test body in accordance with the acoustic testing and measurement procedures outlined in BREEAM Methodology.
Second credit - Indoor ambient noise levels	
Criteria	Achieve indoor ambient noise levels that comply with the design ranges given in Section 7 of BS 8233:2014.
Testing requirement	A programme of pre-completion acoustic testing is carried out by a compliant test body in accordance with the acoustic testing and measurement procedures outlined in the BREEAM Methodology.
Third credit - Room acoustics	
Criteria	Achieve the requirements relating to sound absorption and reverberation times, where applicable, set out in Section 7 of BS 8233:2014.

Note: This document is intended as guidance only. Consult your BREEAM AP or Assessor to ensure compliance is achieved.

Industrial, Retail, Prisons and Other building types

Testing requirement

A programme of pre-completion acoustic testing is carried out by a compliant test body in accordance with the acoustic testing and measurement procedures outlined in Methodology. For spaces where the acoustic environment is controlled through the use of defined amounts of sound absorption, installation of a specification compliant with the BS 8233:2014 criteria demonstrates compliance.

A site inspection by the developer or SQA is required to confirm that a compliant specification has been installed.

ii. Suitably qualified acoustician (SQA)

An individual achieving all the following items can be considered to be 'suitably qualified' for the purposes of a BREEAM assessment:

- Has a minimum of **three years relevant experience** (within the last five years). Such experience must clearly demonstrate a practical understanding of factors affecting acoustics in relation to construction and the built environment; including, acting in an advisory capacity to provide recommendations for suitable acoustic performance levels and mitigation measures.
- An individual who holds a recognised **acoustic qualification** and membership of an appropriate professional body. The primary professional body for acoustics in the UK is the Institute of Acoustics.

Where an SQA is verifying the acoustic measurements or calculations carried out by another acoustician who does not meet the SQA requirements, they must, as a minimum, have read and reviewed the report and confirm in writing that they have found it to:

- Represent sound industry practice
- Be appropriate given the building being assessed and scope of works proposed
- Avoid invalid, biased and exaggerated recommendations.

Additionally, **written confirmation** from the third-party verifier that they comply with the definition of an SQA is required.

An SQA can be appointed **alternatively to carrying out Action 1**, to define a bespoke set of performance requirements for all function areas in the building. The bespoke performance requirements use the same three acoustic principles (sound insulation, indoor ambient noise level and room acoustics) to set out the performance requirements and the testing regime required.

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