

Pre-Completion Sound Insulation Testing

What you need to know



Your free eBook

If you're reading this, it's probably because you've been asked to provide a sound insulation test report to Building Control. This is required for all new-build or converted residential projects where there are party walls or floors, and you'll need to get this done before the property can be occupied.

We know that you've got a lot to think about – so we've put together this short guide to help you understand what to do next.



When do I need a test?

You'll need to have acoustic testing carried out if:

- You're building new-build apartments, student rooms, hotel rooms, nursing home rooms etc
- You're building new attached houses
- You're converting an existing house or office/commercial/industrial building into apartments
- Building Control have asked for Approved Document E testing
- You are building a school (Approved Document E regulation E4 applies)

You may also want acoustic testing to verify the performance of existing constructions before work is carried out, or if you need to demonstrate performance for BREEAM or BS 8233.

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What tests do I need?

Tests are only needed to party walls and floors, i.e. those that divide one house or flat (or hotel/student room) from another. You should allow for one 'set' of testing for every 10 dwellings in the development – more if there is a mixture of construction types.

A 'set' of testing is actually up to six individual tests, depending on the property layout. We'll test both airborne and impact sound insulation (see below) and also measure background noise levels and reverberation time.



What happens during testing?

Airborne sound insulation is tested using loudspeakers which generate a high level of pink noise (which sounds a lot like static, or an aircraft engine). We measure in the source room and then measure how much sound has been transmitted to the rooms next door, above and below. This test is relevant to how much general noise such as televisions, music and voices, will transmit through the partition.

Impact sound insulation testing is carried out to floors only, and is relevant to how much of the ‘thumping’ sound of footsteps or dropped items will transmit through. For this we use a device called a tapping machine which has five calibrated hammers which drop in sequence.

We’ll ask you not to be in the rooms while we test, as it can affect the measurement results, but if you’re curious we’re happy to give you a quick demonstration. Don’t be alarmed at how much of the test signal you can hear – it doesn’t mean the partition has failed!

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Is my property ready for testing?

Don't leave your sound insulation testing until the last minute – it's important to know as early as possible if there are problems on site that you need to fix. As a minimum, we ask for the following to be ready on site;

- Windows are complete with locks in place and closeable
- Window trickle vents are in place or temporarily blocked up for testing
- Room and front doors are in place and closeable
- Power, TV/satellite, telephone sockets etc. on party wall are in place if appropriate
- All wall surfaces in rooms to be tested are complete with no holes
- Floors and ceiling surfaces are complete (but carpets not laid), walls and ceilings are plastered
- Cornice and skirting boards are in place
- 240v power sockets are live or 110v is available in each test room
- Rooms to be tested must be clear of building materials
- Site staff made aware that no noise will be permitted during the tests

We operate a flexible booking system – you can book a date with us in advance to be sure that testing won't delay your scheme. But as long as you let us know at least 7 days before if you won't be ready, we'll let you reschedule at no additional charge.



I don't even know where to start! Can you help me?

Of course! We know that before you can be ready for testing you have to go through your design process. This can be complicated, especially in older buildings where you are hoping to keep some of the existing constructions in place. We can review your proposals, give you advice, and even test existing floors if you want to know how they are performing. Just give us a call.

How much will all this cost me?

Not as much as you think.

Our prices start at £350+VAT for one set of tests, with a discount for subsequent sets of testing if needed (generally only for developments with more than 10 units).

How do I find a reputable tester?

In order to carry out testing in accordance with the Building Regulations, your tester must either hold UKAS accreditation, or be approved by the Association of Noise Consultants Registration Scheme.

dBx Acoustics Ltd is accredited by UKAS (testing laboratory number 9473) to carry out sound insulation testing for Building Control compliance. Our professional technical team carries out testing throughout the UK and can also offer you advice on designing and selecting partitions before you start work on site if you are unsure how to proceed.

Our UKAS Accredited sound tests mean that you have peace of mind that your testing will be carried out in accordance with all of the relevant British Standards (including BS EN ISO 140 Part 4 and BS EN ISO 140 Part 7), and compliant with the reporting requirements of Approved Document E.



The dBx Planning Package

We hope this guide has made the need for sound insulation testing a less daunting prospect for you. If you're not yet ready for testing and feeling nervous, dBx Acoustics offers a full 'sound insulation package' service to guide you through design and construction, which includes:

- Measuring sound insulation of constructions which will be retained
- Advice on upgrades to existing constructions
- Advice on detailing and control of sound flanking
- Support with design of new floors and partitions to meet requirements
- Help in selecting appropriate materials

Whatever stage you are at with your project, give us a call – we're always happy to help!

All our consultants are members of
the **Institute of Acoustics**
and hold relevant
degree-level qualifications,
so you can be confident that
your project is in good hands.

We're happy to answer your
questions –

just give us a call
on **0161 711 0320**

or email
enquiries@dbxacoustics.com
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