



HOUSES

Detached houses don't need any sound insulation testing completed on them, as they don't share any party walls or floors with any other properties.

Semi-detached or Terraced houses only need **walls** tests completed on them, as they share party walls with each other, but don't share any floors.

A **set of walls tests** comprises of two airborne wall tests. These are tests where a loudspeaker is used to generate the noise in a **habitable room** (Living room, dining room or bedroom), and a decibel meter reads the level of noise lost through the separating wall between the source house and the house next door. These tests must be completed in two separate rooms to complete the set.

FLATS IN A BLOCK

When there are more than three flats in a block, they almost always share both party walls and party floors. In this instance you would need at least one **set of walls and floors tests**. This comprises of two airborne wall tests, two airborne floor tests and two impact floor tests. One set of walls and floors tests is essentially an amalgamation of the two sets described above. The above also applies for Rooms for Residential Purposes (Hotels, Hostels, Houses of Multiple Occupancies).

NUMBER OF SETS OF TESTS

Building Regulations Part E states that 'building control bodies should stipulate at least one set of tests for every ten dwelling-houses, flats or rooms for residential purposes in a **group** or **sub-group**'. What this means is that if there are 1-10 units in a development, one set of tests is required, and if there are 11-20 units in a development, two sets of tests are required.

Part E defines a **group** as:

1. dwelling-houses (including bungalows)
2. flats
3. rooms for residential purposes

Thus, if a development has 11 houses and one block of 11 flats, the whole development would require 4 sets of tests – 2 on the houses, 2 on the flats.

A **sub-group** occurs when there are 'significant differences of construction types within any of these groups'. For example, an existing office block with a concrete floor construction may be converted into flats, with a new build lightweight timber frame level added at the existing roof level. The new level must be considered as it's own sub-group and therefore additional testing may be required. In this example, if the existing office is converted into 21 flats and the new level consists of 11 flats, the development will require 5 sets of tests – 3 for the converted section, 2 for the new section.

FLATS ONE ABOVE THE OTHER

Where you have flats above each other, but not next to each other (for example when a house is converted into flats), you need a **set of floors tests**. You don't need any walls tests, as there are no new shared walls being created.

A **set of floors tests** comprises of two airborne floor tests and two impact floor tests. The airborne tests use a loudspeaker to generate the noise in a habitable room, and a decibel meter reads the level of noise lost through the floor in a habitable room of the flat below or above.

The impact tests involve using a box with metal hammers (a tapping machine) to create impact noise on the floor. A decibel meter in the flat below reads the amount of sound transferred through the floor/ceiling divide.

These tests must be completed in two separate rooms to complete the set.

COMMERCIAL UNITS

When a development creates new residential units directly above a commercial unit, a **set of airborne floors tests** is required. This is the same as a set of floors tests, except that no impact testing takes place. Therefore, a set of airborne tests comprises of two airborne floors tests only.