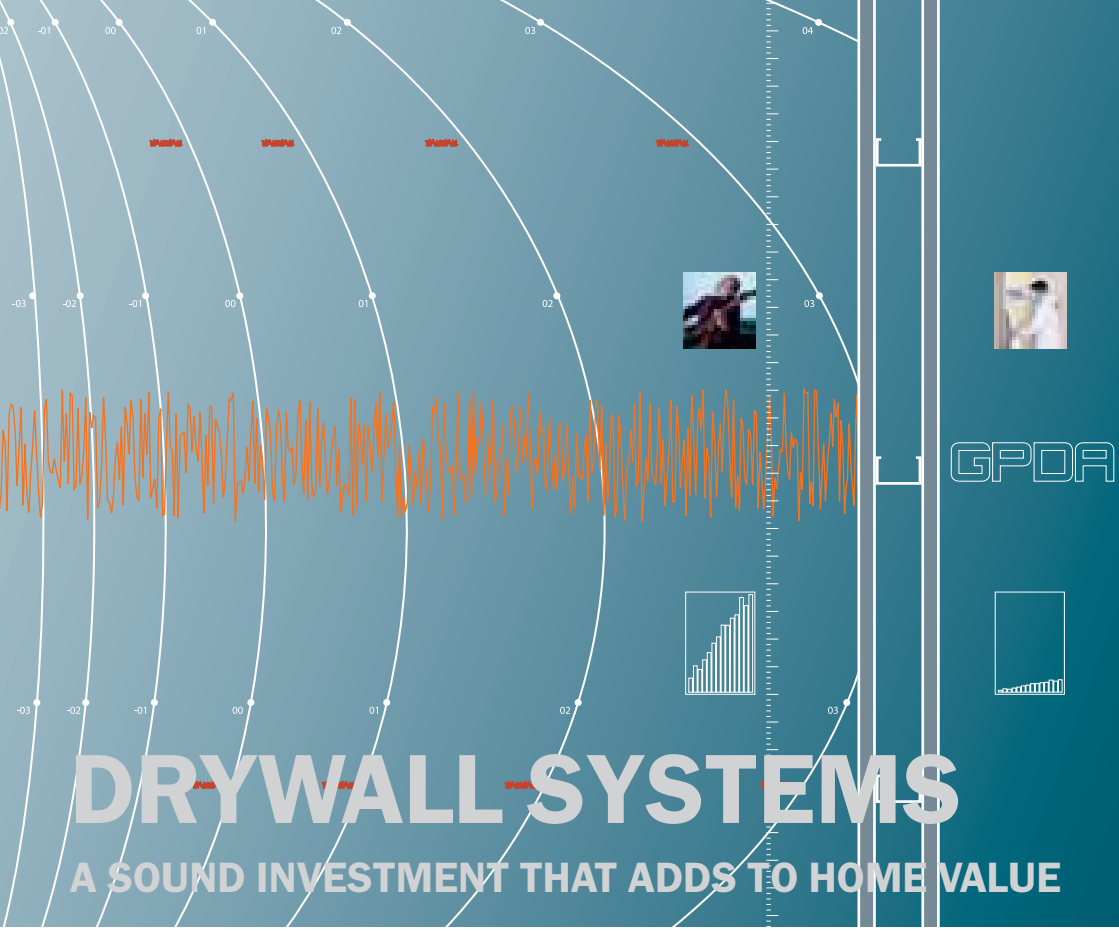

DRYWALL SYSTEMS

A SOUND INVESTMENT THAT ADDS TO HOME VALUE

Whilst most modern homes already rely on plasterboard systems to meet sound performance regulations, investing just a little more in these products can offer the developer real dividends in terms of purchaser appeal and sales value. In fact, spending less than £500 extra on enhancing the drywall sound specification for a typical three bedroom house could add £2,500 to its value - that's one of the key findings of a recent national survey.*

*The survey was conducted by RSGB Omnibus, a division of TNS. 1,129 homeowners were interviewed in 130 locations across the UK in October 2005.

And, of course, effective sound control is one of the key factors in creating a comfortable home, just as important to purchasers' standard of living as that smart kitchen or bathroom.

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Sound facts

Here are a few 'sound facts' about today's drywall systems:

- They are more effective at preventing sound transfer between rooms than traditional masonry
- They can meet Building Regulations requirements even without any additional insulation between wall facings
- They are regularly used in multiplex cinemas to provide high performance sound separation between adjacent auditoria
- They allow appropriate sound performance to be achieved using slimmer partitions - that means more living space.

About sound

There are two types of sound. 'Airborne' sound is the noise of people talking, from musical instruments and music systems. 'Impact' sound is created when a neighbour bangs on a wall or when someone walks or stamps on the floor above you.

The further away you are from a sound source, the less you are likely to hear it. Putting a barrier between yourself and the sound - in the form of a partition or floor - reduces the amount of sound you hear.

The effectiveness of that barrier is only partly to do with its thickness. A solid mass, such as a masonry wall, may allow sound to pass readily through it if it reverberates, has the wrong density, or provides no 'sound break' to interrupt the flow of sound waves.

Plasterboard systems used in multi-screen cinemas must achieve sound attenuation levels of 80dB or more to ensure the audience enjoying a thriller is not disturbed by the music from a romantic comedy playing on the adjacent screen.

Why drywall is so effective

Drywall systems provide effective sound insulation because they are designed to provide a physical barrier to sound, incorporate a sound break and minimise reverberation.

The boards used are formulated to have the correct density to block sound.

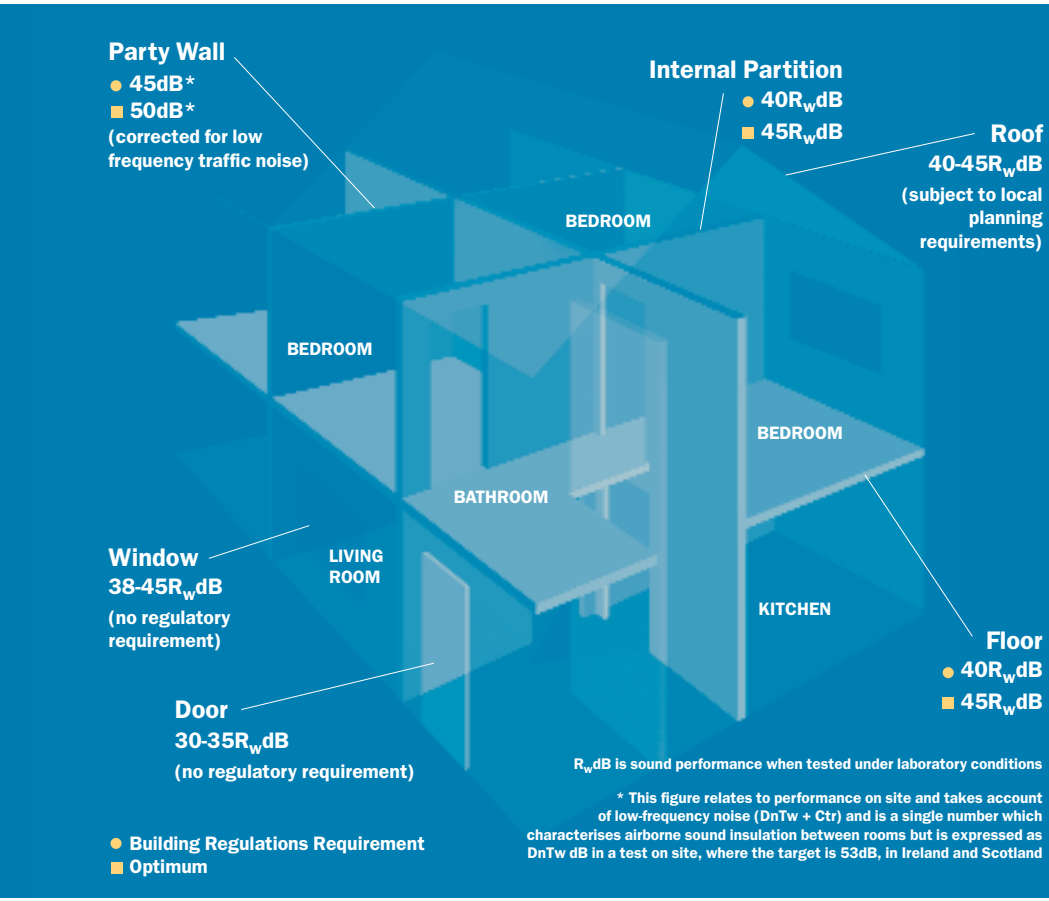
Between the two sides of the partition there is an air cavity, which interrupts the flow of sound. This applies irrespective of whether or not additional insulation material is included. Because the two sides of the partition are separate it is harder for impact sound to pass through.

These characteristics mean that a typical drywall partition in a house is 75mm thick. A comparable masonry wall would need to be 110mm thick to achieve the same sound performance.

The building regulations

Construction in the UK is controlled by the Building Regulations (England & Wales), Scottish Building Standards and the Building Regulations (Ireland). The requirements for sound performance are similar. The regulations are intended to help address 'noisy neighbour' syndrome and keep noise within properties to an acceptable level.

Sound can enter a home through the walls, the roof, the windows and the doors - and through floors and ceilings in the case of apartments. In most homes the majority of noise from the outside passes into the property through the windows - double glazing substantially reduces this.



Inside most homes, sound travels through doors (whether open or closed) and through partitions and floors.

Sound levels are measured in decibels (R_wdB). UK Building Regulations require partitions and floors to achieve 40R_wdB sound separation between rooms (this does not apply in Scotland and Ireland) and party walls/floors to achieve the equivalent of 55R_wdB*. These are the highest standards that have been applied for many years, resulting in homes with markedly better sound performance than most of their post war predecessors.

At 55R_wdB effective insulation is provided against the majority of day to day noise but, of course, exceptionally loud noises will still be heard.

At 40R_wdB you may just be aware that someone is talking in an adjacent room but should not be able to interpret their speech.

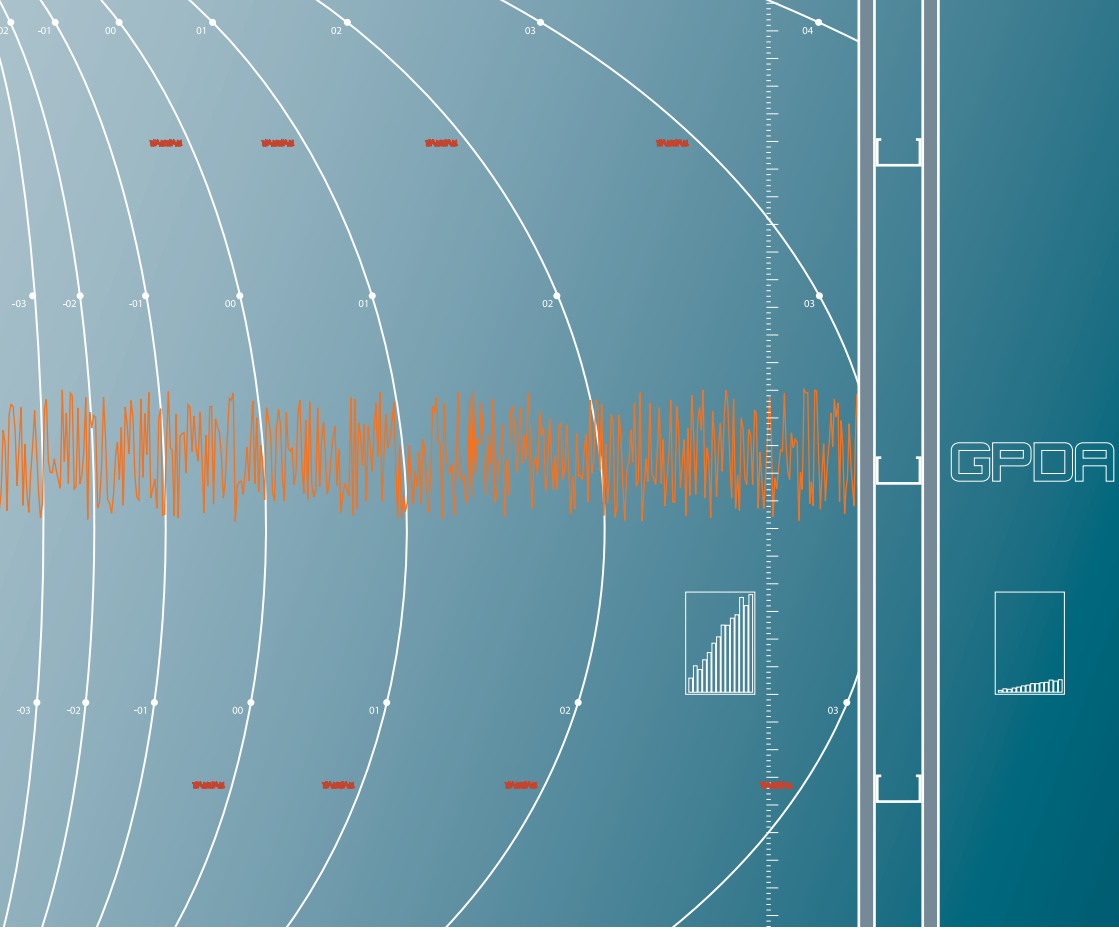
Simple ways to enhance sound performance

Adding to sound performance can be as simple as using a high performance plasterboard instead of a standard wallboard, or using two layers of board instead of one. That means giving a boost to existing house types at the construction stage is just as simple as building-in enhanced standards as new designs are developed.

A sound future

Building a home is about creating a quality product that homeowners will love to live in at a competitive market price. In the future both housebuyers and regulators may demand ever higher standards. The versatility of drywall systems provides the ability to match the most demanding of specifications and adapt to changing needs and home buyer preferences with cost-efficiency and style.

Purpose-designed systems offer high levels of impact sound resistance in separating floors between dwellings.



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For more information about drywall sound performance, ask any member of the Gypsum Products Development Association or visit the GPDA website at www.gpda.com