

# acoustic testing



committed to excellence

[www.chilternfire.co.uk](http://www.chilternfire.co.uk)

[www.chilterndynamics.co.uk](http://www.chilterndynamics.co.uk)

[www.qmark.info](http://www.qmark.info)

# Chiltern Dynamics' acoustic products testing services

**We offer UKAS-accredited acoustics testing for a wide variety of products used in construction. Whilst diverse in nature and scope, all of our testing services have one goal. They are designed to help our clients achieve their objectives in the most efficient and economic way possible. We do this by following a clear and logical process as detailed below.**

## **explore**

First and foremost, we take the time to understand our clients' requirements. This is an essential stage where we actively encourage our clients to talk to us about their products and explain what they are hoping to achieve. We find many clients turn to us precisely because they appreciate having the opportunity to discuss their products with experts prior to their investment in product test programmes. As part of this approach, we can also undertake a review of our clients' product ranges.

## **develop**

Once we have thoroughly explored our clients' plans for their products, and in turn, have shared with them our knowledge of legislative requirements, we are then in a position to develop the most appropriate test programme. By this stage we will have made sure that we have gained sufficient information about our clients' objectives and that our clients have understood the scope of the test data generated.

By listening to and involving our clients at every stage, particularly during the test programme, we help our clients in a way that we feel is unique to Chiltern Dynamics.

## **testing and support**

**During the testing stage, we continue to make every effort to ensure that the acoustic test programme goes as smoothly and seamlessly as possible. As part of this approach, we often provide our clients with the services of our on-site technical team to handle critical aspects of the testing process, including:**

- A full support service to ensure the test specimen is assembled and installed correctly
- Workshop facilities enabling further work to specimens if required
- Assisting with sourcing and supplying necessary materials
- A technical officer with specialist acoustic knowledge in attendance throughout the testing stage to explain the testing procedure and review the results



**Chiltern International Fire and Chiltern Dynamics, as part of the BM TRADA Group, have more than 75 years' experience in providing practical solutions in the field of testing and consultancy for the construction industry. We are renowned for our expertise in laboratory testing of building products and for helping our clients make informed decisions about their products.**

**Chiltern Dynamics offers independent UKAS-accredited testing services as required by national and international building regulations, CE marking and the requirements of third party certification. We are a centre of excellence for performance testing of doors, windows, glazing systems, penetration seals, linear joint seals, door seals and partition systems.**

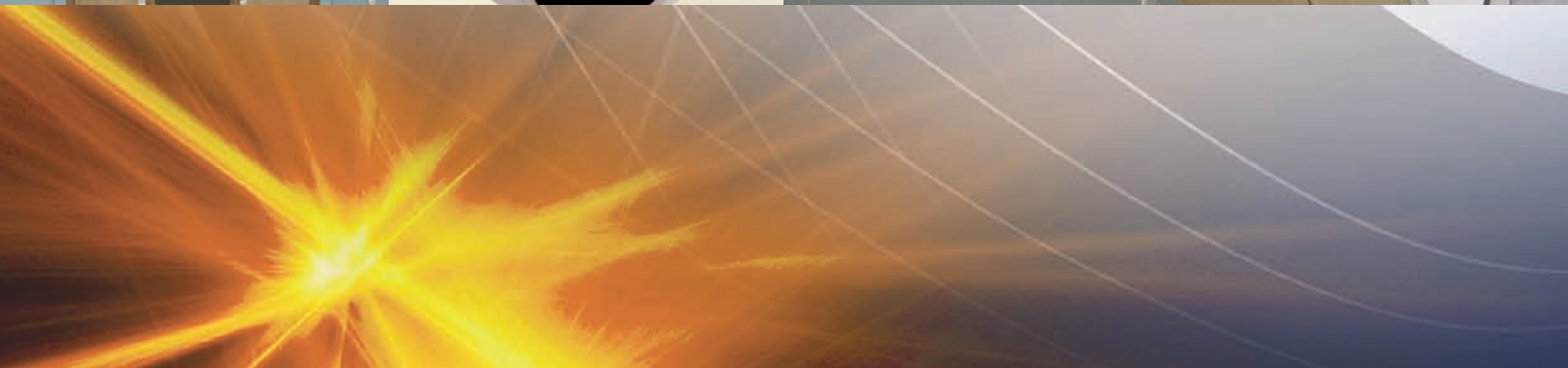
## **what is laboratory based acoustic testing?**

**Noise (or unwanted sound) is on the increase in our society; it is a source of irritation and stress for many people and can even damage our hearing if it is loud enough. Many of us are exposed to stressful levels of noise at home, work and in the educational environment.**

As a result, various Regulations (e.g. Approved Document E in England & Wales), Codes (e.g. Code for Sustainable Homes) and Initiatives (e.g. Building Bulletin 93) have been introduced to set the levels of acceptable noise in different buildings. In addition, specific clients and/or projects may require heightened levels of sound insulation to ensure privacy or maintain an environment conducive to study.

Therefore, building products that make up walls and floors are required to demonstrate their performance to prove that they will meet the overall requirement for these separating elements. The method for proving sound insulation performance is by testing in an accredited test laboratory.

Acoustics testing measures the amount of sound, passing from one room to another through building elements e.g. doors, windows and partitions. The specimen to be tested is installed into an aperture between the Source room and the Receiving room. Sound across the full frequency range is then generated in the Source room as determined by the relevant test standard. The sound level is measured in the Receiving room, and the difference between the levels of sound in each room is determined to provide a measure of sound insulation in decibels.



## acoustic consultancy

Chiltern Dynamics is UKAS-accredited to test to the appropriate parts of BS EN ISO 10140 (previously parts of BS EN ISO 140). We can test the following products seeking to demonstrate sound insulation performance up to 50 dB (R<sub>w</sub>) or 65 dB (R'<sub>w</sub>):

- ▶ Doorsets (timber, composite, steel, aluminium and PVC-u)
- ▶ Windows (timber, composite, steel, aluminium and PVC-u)
- ▶ Glazing systems
- ▶ Penetration and linear joint seals
- ▶ Door & window seals
- ▶ Single leaf partition systems

## additional product testing services

We provide our clients with a comprehensive suite of testing services. By having one testing body complete all the major performance criteria tests, our clients receive a co-ordinated, cost-effective and convenient solution.

Chiltern International Fire provides UKAS-accredited fire resistance testing to:

- ▶ Doorsets (timber, composite and steel) BS 476: Part 22 & BS EN 1634-1
- ▶ Load bearing walls BS 476: Part 21 & BS EN 1365-1
- ▶ Penetration seals BS EN 1366-3
- ▶ Linear joint seals BS EN 1366-4
- ▶ Partitions and glazed screens BS 476: Part 22 & BS EN 1364-1
- ▶ Active fire barrier curtains BS 476: Part 22 & BS EN 1634-1

Chiltern Dynamics is UKAS-accredited to test doors and windows to current British and European standards for individual specifier requirements, SBD and CE marking, covering the following areas:

- ▶ Security & burglary resistance testing PAS 24, BS 7950, EN 1627 - EN 1630
- ▶ Weather testing BS EN 1026, BS EN 12427, BS EN 1027, BS EN 12489, BS EN 12211, BS EN 12444
- ▶ Durability testing CDTM01, DD 171, EN 1191, EN 1192, BS EN 12046-2
- ▶ Thermal simulation BS EN ISO 10077-2

## site based acoustic testing services

Chiltern Dynamics also provides nationwide, UKAS accredited acoustic testing for flats, houses, rooms for residential purposes, schools and other buildings, based upon:

- ▶ BS EN ISO 140-4: Airborne sound insulation of separating walls and floors
- ▶ BS EN ISO 140-7: Impact sound insulation of separating floors

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## why choose Chiltern Dynamics?

- Chiltern Dynamics is one of the most experienced, independent testing organisations in the UK. Together with Chiltern International Fire, we provide a comprehensive suite of testing services for construction products for both commercial and domestic buildings.
- The real value we offer is not just in the physical testing of our clients' products, but in the support we offer our clients at every stage of the testing process.
- Our clients choose us because we take the time to explore their requirements. As part of this approach, we encourage our clients to talk to us about their products and explain what they are hoping to achieve.
- We develop test programmes only when we are sure that we have gained sufficient information about our clients' objectives. Furthermore, we ensure that our clients have understood and are completely satisfied with the scope of test data to be generated.
- Over 75 years' experience in providing practical solutions in the field of testing and consultancy gives us an unrivalled understanding of the responsibilities and pressures our clients face to complete their projects on time and within budget.
- We believe in taking responsibility for ensuring that the acoustic laboratory testing process is as streamlined and efficient as possible.
- We have a responsive, flexible approach to clients' needs, problems and future development requirements. We offer a dedicated level of service that we believe is unmatched within the industry.

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### **BM TRADA Q-Mark**

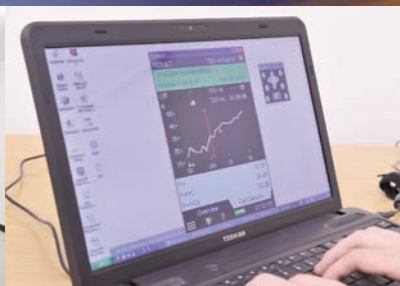
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