Testing & Technical Services

LORIENT
Test driven performance
Lorient's Testing & Technical Services centre offers a variety of specialist testing services for manufacturers and designers of assemblies including doorsets, windows, glazing systems, door hardware to name but a few.

Whether you’re investigating new materials, or developing new or existing products, right through to durability testing and benchmarking performance – our team of experts will support you throughout the process. If you’re looking to work in partnership on a longer-term project, we’d be pleased to discuss your requirements.

Why Lorient?

For almost 40 years’ we’ve been designing and manufacturing high performance door sealing systems.

Our dedicated R&D centre at Discovery House has played a pivotal role in generating successful product developments over this time.

Launched in 2013, our dedicated Testing and Technical Services division has established itself as an important facility for manufacturers and designers of doors, windows, glazing systems and hardware, to name just a few.

- Almost 40 years’ technical knowledge and industry experience;
- Save time and money testing for both acoustics and fire;
- Efficient and flexible service;
- Comprehensive support from start to finish;
- Projects undertaken in total confidentiality;
- Very competitive rates;
- Comfortable workspaces streaming live test data;
- Live video feed of fire testing available;
- Video footage (DVD/USB) of fire testing;
- Work while you wait – free Wi-Fi access.

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Wherever noise influences human activity, effective acoustic sealing is essential. Whether confidential discussions in a private office or doctor’s surgery; or reducing noise from adjacent rooms in hotels, preservation of privacy is paramount. Building Regulations provide guidelines for acoustic performance in a number of situations.

Acoustic Testing

Lorient’s state-of-the-art acoustic transmission suite, features the latest Brüel & Kjær sound measurement technology. It was designed and purpose-built to meet the requirements of BS EN ISO 10140 – Laboratory measurement of sound insulation of building elements. The acoustic tests involve installing the assembly (door/window etc.) within a dividing wall between a sound source room and a receiving room. Sound waves across the full frequency range are produced in the source room. The receiving room measures the sound pressure level. The difference between the sound pressure levels recorded in each room is determined as the Sound Reduction Index (R).

The Sound Reduction Index is an expression of the laboratory sound transmission performance of a particular element or construction. It is a function of the mass, thickness, sealing method and overall area of sample.

Acoustic Transmission Suite

Our acoustic transmission suite is run by respected and experienced technical consultants, who will oversee the testing process from start to finish; and guide you through the maze of regulations. Working closely together, we’ll design and implement a test programme to meet your specific requirements.

Our technicians have many years’ experience building test specimens, and we also offer an installation service. Once the testing programme is complete, a number of options is available on top of an inclusive report, you could upgrade to a comprehensive report underwritten by an independent acoustic expert.

Below are a number of different assemblies that can be tested – there may be many others. Just ask!

- Doorsets (single/double – timber, composite, PVC-u, steel);
- Windows;
- Glazing (including screens);
- Door Hardware.

Please contact our Testing & Technical Services team to find out more on +44 (0)1626 834252.
Acoustic transmission suite
Indicative fire test furnace
Fire and smoke protection measures are essential, life-saving precautions in a building. What’s more, they protect the property from the devastating consequences of the fire itself, and the damaging effects of hot and cold smoke.

Fire and smoke protection products must be tested to prove their performance. Separate tests are required for fire and smoke.

**Indicative Furnace**

Lorient’s indicative furnace has proven popular for many years, providing customers with real insight into their own products’ performance. Prior to full scale testing our customers can use the furnace for product development purposes – helping to save substantial testing costs.

Using our furnace, the fire resistance properties of building materials can be tested in accordance with BS 476 Pt. 20 (method of test for determination of the fire resistance of elements of construction) or EN 1363-1 (fire resistance test standard); or be client-specific to suit a particular purpose.

The test specimen (which only represents the top of the door) is placed at the front of the furnace and exposed to standard fire conditions. The location and period of fire resistance is determined by the regulatory requirement which could be 30/60/90 or 120 minutes.

**Fire Testing**

We have many years’ experience planning test programmes and building test specimens for indicative fire testing. The maximum overall specimen size of the indicative fire test furnace is 1m x 1m.

To minimise costs, the supply of data and formal reporting are all optional.

The furnace is ideal for evaluating the fire performance of a number of products including:

- Doorsets (single – timber, composite, PVC-u etc);
- Glazing (including screens);
- Door Hardware;
- Ventilation Ducts;
- Dampers.

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We offer a professional and expert fire door inspection service. Our Certificated Fire Door Inspectors are fully qualified under the Fire Door Inspection Scheme (FDIS); and have been assessed by Exova Warringtonfire, an independent third party. Certificated to carry out the inspection of your building’s fire doors and prepare a detailed survey and report on the condition and function of the fire doors on your premises.

Fire Door Inspection Services

We check and test over 25 individual factors and components of your fire doors and issue a certificate of compliance:

- We will provide you with a detailed inventory and written report on the condition and functionality of each fire door. The report is held securely online.
- This report may be used by the designated Responsible Person as part of regulatory requirements in a fire risk assessment of the building.
- Requirements for any remedial work are identified in the report.
- A label is attached to each fire door indicating when the inspection was undertaken, and demonstrating to the users of the building that the doors have been surveyed professionally.

Don’t leave it to chance, get in touch today – ask us about our services and obtain a quote, email testing@lorientuk.com.

Other Testing Services

We also offer a range of other testing services; these include:

- Smoke leakage;
- Air leakage;
- Mechanical cycling;
- Environmental chamber analysis;
- Site-based acoustic testing;
- Attendance at external fire tests;
- Consultancy services;

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Fire door inspection services
Comprehensive support

We continue to lead the way in research and development. As a company we have almost 40 years’ experience, so our experts are well equipped to listen, help and advise you on your sealing system requirements.

Technical Expertise

Our Testing & Technical Services centre is operated by experienced technicians and technical consultants who are equipped with extensive and diverse knowledge of Building Regulations and Standards, specifically relating to acoustic, smoke and fire containment. Our team will provide support and recommendations throughout the testing process.

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Support Services

We offer a range of services including building test specimens, installation, and workshop facilities if further last minute modifications need to be made.

Customer Rooms

We have several comfortable workspaces with free WiFi; and access to a kitchen area. If you are spending a day testing with us, we’ll provide you with a buffet lunch.

Acoustic Search Tool

Our acoustic search tool on our website gives you quick and easy access to a wide range of tested acoustic sealing systems on a variety of popular door constructions and configurations.

[www.lorientuk.com/acousticsearch](http://www.lorientuk.com/acousticsearch)

The tool allows users to select a specific decibel rating; along with door configuration, fire door rating, doorset type etc to filter the results. The ‘Acoustic Search’ tool is updated frequently with Lorient’s ever-expanding portfolio of test evidence. If you’re looking for high performance or specialist applications – please contact us on +44 (0) 1626 834252, there may be some additional configurations we haven’t presented.

Customisation

If you have a construction product, but it isn’t covered in this brochure, we may be able to help (e.g. acoustic testing of staircases) and develop a customised solution for you.

Lorient’s dedicated Technical Services team supports and works as part of your design team, offering informed product advice and guidance on regulatory requirements and standards.

Test Reports

A range of different formats for the supply of data and formal reporting is offered. Abridged and comprehensive test reports are available.

Price Lists

A price list for our Testing & Technical Services is available upon request please call +44 (0) 01626 834252 or email: testing@lorientuk.com

Trade Associations

Lorient is proud to be a member of the following associations:
Performance Door Design: The Basics of Sound Reduction

Effective acoustic containment helps to improve the quality of the built environment, preserving privacy as well as excluding unwanted noise. With changing regulations, it’s essential to be informed of the relevant requirements and the implications for door assemblies.

Our acoustic CPD seminar covers:
- the nature of sound, examining airborne transmission of sound;
- regulatory requirements and British Standards that relate to acoustic performance;
- test procedures and interpretation of test reports;
- effective design of door assemblies for acoustic performance, including door construction and the influence of sealing systems;
- design conflicts between acoustic performance, durability and ease of operation of the door;
- independent accreditation.

The Role and Performance of Fire and Smoke-Resisting Door Assemblies

The importance of fire and smoke resisting door assemblies is illustrated by the 322 annual deaths in fire tragedies in the UK alone. Apart from the human toll, property losses each year approach £2.52 billion.

Our fire and smoke containment CPD seminar covers:
- hard facts concerning deaths, injuries and property damage caused by fire and smoke;
- regulatory requirements for fire and smoke resisting door assemblies;
- the nature and behaviour of smoke;
- effective design of door assemblies for smoke containment, including the threshold gap;
- design conflicts between fire containment, smoke containment, durability and ease of operation of the door;
- independent accreditation.

The Regulatory Reform (Fire Safety) Order 2005 and its implications for fire doors

The RRO consolidated 70 pieces of legislation; shifted responsibility for fire safety management; abolished the Fire Safety Certificate; established the Fire Risk Assessment and created major change in legal liability.

Our RRO CPD seminar covers:
- an overview of the RRO;
- product solutions;
- the dangers of fire and smoke;
- the importance of fire doors – including installation and maintenance.

Our CPD materials have been independently verified and certified by the RIBA as CPD approved. A certificate for 1 hour’s CPD will be provided, which contributes to Continuing Professional Development requirements.

If you are interested in booking a seminar, please contact our Marketing department or email cpd@lorientuk.com.

Call our Technical Services team on 01626 834252
www.lorientuk.com