We’ve been designing and manufacturing high performance sealing systems for over 35 years.

And we’re passionate about the products we make. Our dedicated R&D and testing facilities rigorously put our sealing systems through their paces — enabling us to enhance product form and function. We’ve built a strong reputation for design innovation; and for producing the highest quality sealing systems embracing acoustic, smoke, fire and thermal containment; as well as accessibility.

Respected throughout the industry for our technical expertise, we play an active role in helping to shape standards and best practice. We believe in providing excellent levels of customer service; and are at our best working in partnership with you.
Acoustic Sealing Systems for Door Assemblies

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SEALING SOLUTIONS

FEATURED PRODUCTS

PERIMETER SEALS

COMPREHENSIVE SUPPORT

We continue to lead the way in research and development. As a company we have over 35 years’ experience, so our experts are well equipped to listen, help and advise on your sealing system requirements.

Technological advances we’ve developed for our specialist fire and smoke protection products are now available from our sealing products range. Our range of acoustic sealant systems will ensure your building’s acoustic properties are consistent.

Our acoustic search tool on our website gives you quick and easy access to a wide range of tested acoustic sealing systems and easy access to a wide range of supporting documents including installation guides and CAD configurations we haven’t presented. There may be some additional configurations we haven’t presented.

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Lorient’s dedicated Technical Services team supports and works as part of your design team, offering informed advice on acoustic, fire, smoke and condensation protection for refurbishment and replacement projects. If you need help or advice on fire and smoke protection for refurbishment or replacement projects, please contact Lorient’s dedicated Technical Services team.

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+44 (0) 1626 834252

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Flame retardant.
### SEATING SOLUTIONS

**Door configuration** | **Sealing system** | **Protection**
---|---|---
Door | Double 54mm | 43dB
Door | Single 59mm | 43dB
Door | Single 54mm | 40dB
Door | Double 44mm | 35dB
Door | Single 44mm | 33dB
Door | Double 54mm | 31dB
Door | Single 44mm | 29dB

**dB Rating** | **Door Thickness** | **Perimeter Meeting** | **Threshold**
---|---|---|---
31—34dB | SOLUTIONS

**Double 54mm**
- 43dB
- 42dB
**Single 59mm**
- 40dB
**Double 44mm**
- 35dB
**Single 44mm**
- 33dB
**Double 54mm**
- 31dB
**Single 44mm**
- 29dB

---

### FEATURED PRODUCTS

#### PERIMETER SEALS

- **LAS4012**
- **LAS4014 si**
- **Firtree™**
- **RF1™**
- **PLUS**

#### THRESHOLD PLATES

- **LAS4012**
- **LAS4014 si**
- **Firtree™**
- **RF1™**
- **PLUS**

#### DROP SEALS

- **LAS4012**
- **LAS4014 si**
- **Firtree™**
- **RF1™**
- **PLUS**

#### GLAZING RETENTION SYSTEMS

- **LAS4012**
- **LAS4014 si**
- **Firtree™**
- **RF1™**
- **PLUS**

#### DOOR BOTTOM SEALS

- **LAS4012**
- **LAS4014 si**
- **Firtree™**
- **RF1™**
- **PLUS**

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### TECHNICAL SERVICES

**We’re happy to provide specialist advice on acoustic, smoke and fire protection for refurbishment and new build projects. If you need help, call our Technical Services team.**

At Lorient, we always like to find out what you need, so get in touch with us today! We provide copies of test reports and sample products where applicable. We also provide guidance on how to deal with Building Regulations and Standards.

We also offer a professional and expert fire door installation service for the following product ranges:
- **LAS4014 si**
- **Firtree™**
- **RF1™**
- **PLUS**

As a company we have over 35 years’ experience, so our team are well equipped to listen, help and advise you on your sealing system requirements.

**Web Support**

Our website features a comprehensive range of supporting documents covering the entire range of products, including installation guides and CDD. Further supporting documents, such as new product sheets, are also available for download, together with copies of certification and specific test results.

**Online 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 and new products in our entire range. Our search tool allows users to select a door configuration, fire door rating, constructions & configurations. On a variety of popular door systems we have an acoustic search tool. Our website gives you quick and easy access to a wide range of tested acoustic sealing systems and new products in our entire range. Our search tool allows users to select a door configuration, fire door rating, constructions & configurations. We also offer a professional and expert fire door installation service for the following product ranges:
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Please note that illustrations are not to scale and for reference only.

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**Search app:**

www.lorientuk.com/acousticsearch

**Find acoustic solutions in our online Acoustic Search app:**

www.lorientuk.com/acousticsearch

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## SEALING SOLUTIONS

### SEATING SOLUTIONS

---

**PERIMETER SEALS**

![Diagram](https://via.placeholder.com/150)

**Threshold Plates**

![Diagram](https://via.placeholder.com/150)

**DROP SEALS**

![Diagram](https://via.placeholder.com/150)

**GLAZING RETENTION SYSTEMS**

![Diagram](https://via.placeholder.com/150)

**DOOR BOTTOM SEALS**

![Diagram](https://via.placeholder.com/150)

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**FEATURED PRODUCTS**

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### Online acoustic search tool

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### Customisation

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SEALING SYSTEMS, CREATING SOLUTIONS

ACOUSTIC SEALING SYSTEMS FOR DOOR ASSEMBLIES
One of the many reasons professionals choose Lorient when specifying acoustic door seals is trust. Comprehensive guidance you can trust to ensure accurate specification. Products you can trust to perform at the specified level, today and every day.

The ideal system for any door assembly is defined by that door’s type, location and intended use. Different doors have different strengths and weaknesses. The test data we supply for our products are never generic, they only ever apply to a particular doorset (material and configuration), working together with a set of system components to achieve specific performance.

Our comprehensive range of sealing systems will:

- fill gaps around the door and prevent the transfer of unwanted noise.
- work with your door assembly to improve aspects of its performance.
- add minimal resistance to the opening and closing operation of the door.
- perform reliably in real world use for many years to come.
- enhance quality of life through preservation of privacy.

We’ve only featured a select number of acoustic sealing systems in this brochure, but there are many, many more. Our extensive library of evidence can be found on our website using our web application. Simply visit our website www.lorientuk.com or speak to one of our Technical Services Advisors who will be more than happy to help.

Talk to us +44 (0) 1626 834252
The UK is home to our head office, manufacturing operation and dedicated testing facility. Our UK & Europe head office is supported by operations around the world, delivering the best solutions locally to our customers across four continents.

By keeping abreast of technical developments and changes to regulations and standards across the world, we deliver the highest levels of expertise and support.
Sound can be transmitted through almost any medium – solids, liquids or vapours. Within buildings, sound can be either structure borne (such as footsteps, hammering or impact noise passing through the fabric of the building), or airborne. Door leaves respond to airborne sound.

Airborne sound is transferred through air by the oscillation of air molecules. A repeated sequence of compressions and rarefactions in the air sets up a wave – the sound wave – which is directly related to the sound source.

The number of vibrations per second of the wave is termed “frequency”, and is measured in Hertz, Hz = 1 cycle per second. This is a very low frequency, in terms of everyday acoustics we usually work in the range of 50 – 5,000Hz.

Sound also has power, which is measured in Watts. The human ear is sensitive to both frequency and sound power, and therefore the unit of measurement for acoustics must take both of these into account. The term decibel (dB) is used, which measures sound pressure, and strictly speaking it is a measure of comparison between two levels of sound intensity, generally a reduction.

<table>
<thead>
<tr>
<th>dB</th>
<th>Sound Pressure Comparison between Two Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>dBA</td>
<td>Sound Transmission Class. A single figure performance indicator very similar to Rw but derived from ASTM-E413 Classification for rating sound insulation.</td>
</tr>
<tr>
<td>Rw</td>
<td>Weighted Sound Reduction Index. A single figure performance indicator derived from measurements over a range of frequencies in accordance with BS EN ISO 717-1.</td>
</tr>
</tbody>
</table>

It should be noted that the dB measurement scale is logarithmic, thus a change from 10dBA to 20dBA means that the sound is not just twice, but 10 times more intense.

Human beings are highly adapted to the physical phenomena of light, heat and sound though our sensitivity varies widely.

The human ear can detect levels as low as 20dBA (the rustle of leaves) and tolerate intense noises for short periods without any ear protection, such as the jet engine at around 120dBA. But while these figures are interesting, we should not only be concerned about keeping out loud noises, but we should also be aware of the importance of quiet noise and duty of care where privacy is concerned, such as in the Doctors surgery.

06 www.lorientgroup.com

Acoustic Sealing Systems for Door Assemblies
Door assemblies

Sealing the gaps around a door is therefore crucial to reduce the amount of sound entering or leaving a room.

When fitted to external doors, Lorient seals help to isolate buildings from noise generated by roads, railways and airports. When fitted to internal doors, they help to isolate rooms from airborne noise generated within a building and so are ideal for auditoria, offices, consultation and conference rooms, colleges and universities, hotel bedrooms and individual apartments in communal dwellings; in fact — for most buildings.

Acoustic sealing systems

A door assembly needs to be separately designed and evaluated for its acoustic performance. Many doors that provide acoustic containment may also have to provide fire and smoke resistance.

Door assemblies respond to airborne sound (such as conversation or music), rather than structure-borne sound (such as footsteps or hammering). To reduce the amount of sound passing from one side to the other, we need to consider two things – the door leaf construction and the sealing system.

Sealing system principles

A door leaf will vibrate when sound hits it, and those vibrations transfer the sound from one side to the other. Sound can also pass through any gaps around the edges of the door – deep door stops or rebated edges won’t make a difference to the amount of sound transferred.

Lorient manufactures seals for all four sides of the door, to provide a complete and continuous barrier around the door when it is closed – maintaining the acoustic integrity of the doorset.

The sealing system may also control the transfer of draughts, dust, smoke and fire. Smoke and fire are particularly important, as many acoustic doors in a building will probably need to be fire and smoke resisting too, due to their location. With careful selection, just one sealing system can perform all these tasks.

For lower performances (typically up to Rw 30dB), simple sealing systems can generally be used. For higher performances of Rw 35dB and above, additional or specialist sealing is often required.

There are two main types of Acoustic seal

It is important to seal all four sides of the door using the following:

Perimeter Seals (such as the DS or Batwing®) - designed to seal the perimeter of the door leaf generally at the head, jambs and meeting stiles.

Threshold Seals (such as LAS8001 si drop seal & LAS4001 threshold plate) - designed to seal the gap between the bottom edge of the door and the floor.
Factors affecting performance of Door Designs

When specifying a sealing system, it’s important to take account of all the factors that can impact on performance:

On-site conditions
While laboratory testing provides standardised data for comparative purposes, site conditions need to be considered. Wall, floor or ceiling construction, workmanship and installation methods can all affect the final performance.

Glazed panels
These can be incorporated without a significant loss of acoustic performance and in some cases can improve the sound insulating properties, provided that the area of glass in relation to area of door and thickness of glass being used is considered.

Operating forces
It is crucial that a sealing system should have minimal effect on the opening and closing operation of a door assembly.

Ironmongery
Interrupting a smoke or acoustic door seal at hinges or other ironmongery points can seriously compromise effectiveness. It’s vital to ensure a continuous seal all around the door.

Letter plate apertures
Lorient letter plates are suitable for use on most types of solid timber door construction, and have been proven not to cause any significant reduction to the overall acoustic performance of the door.

Tests were undertaken on a typical FD30S door assembly with a laminated softwood core and in conjunction with the LAS8001 si drop seal. These tests proved that smoke seals with elastomeric fins provide far superior acoustic performance.

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Acoustic Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weighted Sound Reduction Index (Rw)</td>
</tr>
<tr>
<td>LP1504 Finesse™</td>
<td>31dB</td>
</tr>
<tr>
<td>LP1504 DS</td>
<td>31dB</td>
</tr>
<tr>
<td>LP1504 SS</td>
<td>23dB</td>
</tr>
</tbody>
</table>

Lorient’s fin seal technology has been proven to deliver superior acoustic performance when compared to a brush type seal, while also offering low frictional resistance and high durability. A brush type seal will not provide the levels of acoustic performance as detailed in Approved Document E, nor will they provide the low frictional resistance required by Approved Document M.

For optimum acoustic, smoke, fire and thermal containment performance, coupled with outstanding properties of low friction and durability, Lorient’s DS or Finesse™ should always be specified.
REGULATIONS AND REQUIREMENTS

With today’s applications demanding more performance than ever from doors, a Lorient sealing system provides an integrated solution for acoustic, smoke, fire, thermal containment; and ease of access.

Meeting the requirements

Building Regulations exist to ensure the safety and comfort of everyone using a building. Various documents demonstrate the usual way of meeting the requirements of the Building Regulations and in many cases give specific guidance on acoustic containment, accessibility and fire and smoke containment.

Relevant Requirements

Sound:
Guidance and requirements for sound containment are found in Approved Document E (England and Wales), Technical Booklet G (N. Ireland) and Technical Handbook Section 5 (Scotland).

Document E gives specific acoustic performance requirements for door assemblies in a number of situations.

In “dwelling-houses, flats and rooms for residential purposes” (Requirement E1), a minimum acoustic performance of 29dB Rw is stated.

Further clauses in Approved Document E (2.26, 4.20 and 6.6) relate this requirement to door assemblies:

“Ensure that any door has good perimeter sealing (including the threshold where practical), and a minimum mass per unit area of 25kg/m2, or a minimum sound reduction index of 29dB Rw (measured according to BS EN ISO 10140: 2010 and rated accordingly to BS EN ISO 717-1: 2013). The door may also satisfy the Requirements of Building Regulation Part B – Fire safety.”

Approved Document E also covers acoustic conditions in schools. Requirement E4 states:

“Each room or other space in a school building shall be designed and constructed in such a way that it has the acoustic conditions and the insulation against disturbance by noise appropriate to its intended use.”


This document gives “performance standards for airborne sound insulation between circulation spaces and other spaces used by students – minimum sound reduction index Rw”:

“All spaces except music rooms 30 dB
Music rooms 35 dB.”

It’s therefore now essential to take into account the requirements of Approved Document E when specifying and installing sealing systems for door assemblies.

Relevant Standards

The British Standards below refer to seals for doors:

› BS EN ISO 10140: 2010: Laboratory measurement of sound insulation of building elements.
› ASTM-E413 Classification for rating sound insulation.
Many acoustic door assemblies will also need to provide fire and smoke containment. This means that the door assembly will need to have several test reports:

- Fire resistance under the conditions of BS 476 part 20/22; BS EN 1634-1: 2008
- Smoke control under the conditions of BS 476 part 31.1 BS EN 1634-3: 2004
- Acoustic performance under the conditions of BS EN ISO 10140: 2010, rated in accordance with BS EN ISO 717-1: 2013

Fire and Smoke


The requirements for fire and smoke containment with regard to ‘means of escape’ are contained in the above documents.

These documents specify that practically all internal fire resistant door assemblies are also required to prevent the passage of cold smoke.

Please bear in mind that performance in relation to cold smoke needs to be considered separately from performance in relation to fire and hot smoke, and a separate test report is called for.

Accessibility


These documents specify accessibility for everyone using buildings. They detail the size and location of glazed panels in doors in various situations, in order to promote safety and accessibility. Visual contrast on the leading edge of doors is also included, as are opening and closing forces for ease of door operation, threshold height and door width requirements.

In addition to providing acoustic insulation and fire/smoke protection, doors must allow free passage. It is crucial that the sealing system fitted to a door assembly should have minimal effect on the opening and closing operation of the assembly.
TESTING AND TECHNICAL SERVICES

We’ve built our reputation on the quality and dependability of our products, and our investment in R&D has played a pivotal role in keeping our products at the forefront of our industry.

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.

Our state-of-the-art acoustic transmission suite features the latest 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.

Alongside full-scale acoustic testing, we are also able to offer:

- Fire testing
- Smoke leakage
- Air leakage
- Mechanical cycling
- Environmental chamber analysis
- Site-based testing
- Attendance at external fire tests
- Consultancy services
- Fire door inspection services

Call our Technical Services team
+44 (0) 1626 834252
ACOUSTIC TESTING PROCEDURES

The only way to determine the performance of a particular doorset design is to test that product, installed into a structure in a manner that replicates precisely the methods intended for use.

How we test our products

We test the acoustic properties of each doorset and sealing system combination in our acoustic transmission suite in accordance with BS EN ISO 10140.

The test involves 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.

A series of tests will usually include measurement of a "fully caulked" doorset. This is a test carried out using high density sealing (caulking) material to fill all gaps and provides a useful reference for the efficiency of a particular sealing system.

Lorient test programmes are conducted with a range of common door cores, tested in real door scenarios, for example with an accepted industry gap size of 3-4mm. All Lorient sealing systems are acoustically tested in everyday operational mode and many are tested with long vision panels to meet the requirements of Approved Document M.

Rest assured that all information in this brochure has been derived from full size door assemblies.

A third party certificated timber doorset is the best guarantee that all elements – ironmongery, fire and smoke seals and glazing – are fully tested to the relevant standards.

For specialist doors and door blanks, it is essential to consult the manufacturer to determine which seals have been tested. Our Acoustic Search tool on our website provides quick and easy access to a wide range of tested acoustic sealing systems on a variety of popular door constructions and configurations.
Acoustic performance graphs

The sound reduction performance of a given sealing system will vary according to the incident frequency of the sound waves to which it is exposed. The performance graphs used in this brochure convey a clear picture of the characteristic of the various sealing systems over a wide range of incident sound frequencies.

While single-figure Rw or STC ratings are useful for generalised comparisons, the graphs provide a better specific guide, particularly if a known, narrow band of sound frequencies needs to be controlled. In all cases the graphs show the performance of the door assembly, fitted with the chosen sealing system. The graphs show indicative sound curves over a range of frequencies.

Door constructions

For testing purposes, a variety of door types in common use around the world was chosen as follows:

- Extruded chipboard core
- Solid chipboard / particle board core
- Laminated timber core
- High density acoustic core
- Flaxboard rail & stile construction
- Layered acoustic core

For steel door solutions – contact our technical services team.

Search for acoustic solutions using our online Acoustic Search app [lorientuk.com/acousticsearch]
SEALING SYSTEMS EXPLAINED

The sealing systems presented in this brochure cover a wide range of different applications including both commonly specified and specialist doorsets. However, our comprehensive library of evidence is available on our Acoustic Search app: lorientuk.com/acousticsearch

The sealing systems are grouped into four sections starting with systems that are designed to provide a weighted sound reduction index of Rw 29dB and rising to systems capable of Rw 44dB. Each system consists of several (usually 2-5), products, working together around a specific doorset to achieve the desired performance. The illustrations show each product in the system, in situ and clearly labelled to aid easy specification.

Search for acoustic solutions using our online Acoustic Search app lorientuk.com/acousticsearch
Location of perimeter seals

An acoustic seal will generally be located in the reveal of the door frame as shown, bridging the gap between the frame and leaf. This is especially true if it is combined with an intumescent seal, such as the DS seal – which provides acoustic, smoke, fire and thermal energy containment.

Non-intumescent acoustic seals will be located on the door stop, either surface mounted and just touching the face of the door leaf in the closed position, or in the rebate corner. The popular Batwing® acoustic and smoke perimeter seal is located in the rebate corner.

Meeting stile seals

An astragal is a surface-mounted vertical cover strip designed to conceal the gap between the meeting stiles of single-acting, non-rebated, double leaf doors.

Threshold seals

Effective sealing of the threshold gap is absolutely necessary to meet the performance requirements for acoustic seals. A drop seal such as the LAS8001 si is the preferred solution, bearing in mind the need for minimal resistance to opening and closing movements. Drop seals can be face-fixed, semi-rebated or concealed within the bottom of the door leaf. For optimum acoustic performance a drop seal should be used with a threshold plate.

Icons used throughout this brochure:

- Indicates that the seals featured reduce the passage of sound.
- Indicates that the seals featured provide protection against cold smoke.
- Indicates that the seals featured provide protection against fire and hot smoke.
- Indicates that the seals are wheeled traffic friendly.
- Indicates that the seals featured provide thermal containment properties.
29–30dB

SOLUTIONS

SUITABLE FOR
Hotels / Student accommodation / Apartments / Commercial buildings / Schools
LAS1212, LP1504 & LAS8001 si
SINGLE LEAF | SINGLE SWING |
FLAXBOARD RAIL & STILE CONSTRUCTION | 44MM

**Acoustic Performance of Doorset**

![Graph showing Acoustic Performance](image)

**System Components**

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
<th>Description</th>
<th>Key Features</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERIMETER SEAL</td>
<td>LAS1212</td>
<td>Batwing® Highly effective acoustic/smoke seal</td>
<td>Curved fins allow easier door operation, Fitted with minimal disruption to door</td>
<td>Acoustic BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td>DROP SEAL</td>
<td>LAS8001 si</td>
<td>Durable acoustic/smoke/thermal drop seal</td>
<td>Mechanism lifts the seal clear of the floor when opened, Self-leveling works on uneven floors</td>
<td>Acoustic BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Smoke BS 476: Pt.31.1: 1983</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE CF5179 UL R27972</td>
</tr>
</tbody>
</table>
30dB
LP1504 Finesse™ & LAS8002 si
SINGLE LEAF | SINGLE SWING |
SOLID CHIPBOARD CORE | 44MM

ACOUSTIC PERFORMANCE OF DOORSET*

![Sound Reduction Index Graph]

- **Sound Reduction Index**
  - Using components listed above

- **Curve of Reference Values (BS EN ISO 717-1: 2013)**

*Tested in accordance with BS EN ISO 10140-2: 2010

### SYSTEM COMPONENTS

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
<th>Description</th>
<th>Key features</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PERIMETER SEAL</td>
<td>LP1504 Finesse™</td>
<td>Combined acoustic/smoke/fire/thermal seal</td>
<td>Superior aesthetics – transparent fins &amp; woodgrain finishes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Offers continuous smoke seal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Integral antimicrobial protection</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Acoustic BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Smoke BS 476: Pt.31.1: 1983</td>
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<td></td>
<td></td>
<td></td>
<td>Fire BS 476: Pt.20/22: 1987</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>Fire BS EN 1634-1: 2014</td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td>Durability 1 million cycles</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE CF341, CF330</td>
</tr>
<tr>
<td>2</td>
<td>DROP SEAL</td>
<td>LAS8002 si</td>
<td>Face–fixed or semi–mortised acoustic/smoke/thermal drop seal</td>
<td>Mechanism lifts the seal clear of the floor when opened</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Upgrade existing doors</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acoustic BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>Smoke BS 9999</td>
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<td></td>
<td>Fire BS 476: Pt.31.1: 1983</td>
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<td></td>
<td>Fire BS 476: Pt.20/22: 1987</td>
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<td></td>
<td></td>
<td>Fire BS EN 1634-1: 2014</td>
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<td></td>
<td>Durability 1 million cycles</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>CERTIFIRE CF5179, UL R27972</td>
</tr>
</tbody>
</table>

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**ID No. 130**

**DESIGNED FOR:**

- Sound
- Fire
- Smoke
- Thermal
- Accessible
- Environmentally friendly
31–34dB SOLUTIONS

SUITABLE FOR
Schools (excluding music rooms) /
Hotels / Apartments /
Commercial buildings

www.lorientgroup.com
31dB
LAS7001 si, LAS1011, LAS8001 si & LAS4002
DOUBLE LEAF | SINGLE SWING | LAMINATED TIMBER CORE | 44MM

ACOUSTIC PERFORMANCE OF DOORSET*

**SOUND REDUCTION INDEX**
Using components listed above

**CURVE OF REFERENCE VALUES (BS EN ISO 717-1: 2013)**
*Tested in accordance with BS EN ISO 10140-2: 2010

### SYSTEM COMPONENTS

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
<th>Description</th>
<th>Key features</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 PERIMETER SEAL</td>
<td>LAS7001 si</td>
<td>Robust acoustic /smoke seal</td>
<td>Designed to be fitted to existing door stops</td>
<td>Acoustic BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Smoke BS 476: Pt. 31.1: 1983</td>
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<td></td>
<td>Durability 1 million cycles</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>CERTIFIRE CF5179</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>UL R27972</td>
</tr>
<tr>
<td>2 MEETING STILE SEAL</td>
<td>LAS1011</td>
<td>Versatile acoustic /smoke seal</td>
<td>Flexible durable fins</td>
<td>Acoustic BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Easy to fit</td>
<td>Smoke BS 476: Pt. 31.1: 1983</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Durability 1 million cycles</td>
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<tr>
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<td></td>
<td></td>
<td>CERTIFIRE CF5179</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>UL R27972</td>
</tr>
<tr>
<td>3 DROP SEAL</td>
<td>LAS8001 si</td>
<td>Durable acoustic/smoke/thermal drop seal</td>
<td>Mechanism lifts the seal clear of the floor when opened</td>
<td>Acoustic BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Self-levelling works on uneven floors</td>
<td>Smoke BS 476: Pt. 31.1: 1983</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fire BS 476: Pt. 20/22: 1987</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS EN 1634-1: 2014</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Durability 1 million cycles</td>
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<td></td>
<td>CERTIFIRE CF5179</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>UL R27972</td>
</tr>
<tr>
<td>4 THRESHOLD PLATE</td>
<td>LAS4002</td>
<td>Low-profile slimline plate</td>
<td>Works with practically any threshold seal</td>
<td>UL R27972</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Can prevent rain, draught &amp; smoke penetration</td>
<td></td>
</tr>
</tbody>
</table>

**Id No. 262**

DESIGNED FOR:

- **Sound Reduction Index**
- **Curve of Reference Values (BS EN ISO 717-1: 2013)**
- **Tested in accordance with BS EN ISO 10140-2: 2010**

Acoustic Sealing Systems for Door Assemblies
**32dB**

**LAS1212, LP1504 x 2, LP1504DS x 2, LAS8001 si & LAS4002**

**DOUBLE LEAF | SINGLE SWING | SOLID CHIPBOARD CORE | 54MM**

**ACOUSTIC PERFORMANCE OF DOORSET**

---

**SYSTEM COMPONENTS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
<th>Description</th>
<th>Key features</th>
<th>Performance</th>
</tr>
</thead>
</table>
| 1 PERIMETER SEAL | LAS1212 Batwing® | Highly effective acoustic/smoke seal            | ▶ Curved fin shape minimises open/closing resistance  
▶ Fitted with minimal disruption to door                                                                 | Acoustic: BS EN ISO 10140-2: 2010  
Smoke: BS EN 1634-3: 2004  
Durability: 1 million cycles  
CERTIFIRE: CF5179  
UL: R27972 |

| 2 PERIMETER SEALS | LP1504 x 2    | Fire seal                                       | ▶ Integral antimicrobial protection                                                                   | Fire: BS 476: Pt.20/22: 1987  
CERTIFIRE: CF341, CF330 |

| 3 MEETING STILE SEALS | LP1504DS x 2  | Combined acoustic/smoke/fire/thermal seal      | ▶ Exceptional low friction for ease of door operation  
▶ Integral antimicrobial protection                                                              | Acoustic: BS EN ISO 10140-2: 2010  
Smoke: BS 476: Pt.31.1: 1983  
BS EN 1634-1: 2014  
Durability: 1 million cycles  
CERTIFIRE: CF5179  
UL: R27972 |

| 4 DROP SEAL | LAS8001 si Durable acoustic/smoke/thermal drop seal | Mechanism lifts the seal clear of the floor when opened  
Self-leveling works on uneven floors                                                          | Acoustic: BS EN ISO 10140-2: 2010  
Smoke: BS 9999  
BS 476: Pt.31.1: 1983  
BS EN 1634-1: 2014  
Durability: 1 million cycles  
CERTIFIRE: CF5179  
UL: R27972 |

| 5 THRESHOLD PLATE | LAS4002 Low-profile slimline plate                | Works with practically any threshold seal  
Can prevent rain, draught & smoke penetration                                                      | UL: R27972 |

---

**SOUND REDUCTION INDEX**

Using components listed above

**CURVE OF REFERENCE VALUES (BS EN ISO 717-1: 2013)**

*Tested in accordance with BS EN ISO 10140-2: 2010*
33dB
LP1504DS, LAS8001 si & FF1
SINGLE LEAF | SINGLE SWING | GLAZED | SOLID CHIPBOARD CORE | 44MM

ACOUSTIC PERFORMANCE OF DOORSET*

![Graph showing sound reduction index]  

**SOUND REDUCTION INDEX**  
Using components listed above

**CURVE OF REFERENCE VALUES (BS EN ISO 717-1: 2013)**

*Tested in accordance with BS EN ISO 10140-2: 2010

---

**SYSTEM COMPONENTS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
<th>Description</th>
<th>Key features</th>
<th>Performance</th>
</tr>
</thead>
</table>
| 1 PERIMETER SEAL | LP1504DS | Combined acoustic/smoke/fire/thermal seal       | ◀ Exceptional low friction for ease of door operation  
▶ Offers continuous smoke seal  
▶ Integral antimicrobial protection | Acoustic: BS EN ISO 10140-2: 2010  
Smoke: BS 476: Pt.31.1: 1983  
BS EN 1634-1: 2014  
Durability: 1 million cycles  
CERTIFIRE: CF341, CF330 |
| 2 DROP SEAL | LAS8001 si | Durable acoustic/smoke/thermal drop seal         | ◀ Mechanism lifts the seal clear of the floor when opened  
▶ Self-levelling works on uneven floors | Acoustic: BS EN ISO 10140-2: 2010  
Smoke: BS 476: Pt.31.1: 1983  
BS EN 1634-1: 2014  
Durability: 1 million cycles  
CERTIFIRE: CF5179, UL R27972 |
| 3 GLAZING SEAL | FF1 | A pair of bead applied intumescent gaskets for 30 minutes fire resistance | ◀ Flexible, quick & easy to install  
▶ Unique design – enables tolerances between door, bead & glass thicknesses to be accommodated  
Glass type: CF327  
1230 x 230 x 6mm Pyroshield™ 2 |

---

**DESIGNED FOR:**

Acoustic Sealing Systems for Door Assemblies
### 33dB SOLUTION

**LAS1212, LAS1011, LAS1011 x 2, LAS8003 si, LAS4002 & System-36/7 PLUS**

**DOUBLE LEAF | SINGLE SWING | GLAZED | SOLID CHIPBOARD CORE | 44MM**

**ACOUSTIC PERFORMANCE OF DOORSET**

<table>
<thead>
<tr>
<th>System Components</th>
<th>Type</th>
<th>Product</th>
<th>Description</th>
<th>Key Features</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 PERIMETER SEAL</strong></td>
<td>LAS1212</td>
<td>Batwing®</td>
<td>Highly effective acoustic/smoke seal</td>
<td>Curved fin shape minimises open/closing resistance; fitted with minimal disruption to door</td>
<td>Acoustic BS EN ISO 10140-2: 2010; BS EN 1634-3: 2004; BS 476: Pt.31.1: 1983; Durability 1 million cycles; CERTIFIRE CF5179; UL R27972</td>
</tr>
<tr>
<td><strong>2 PERIMETER SEAL</strong></td>
<td>LAS1011</td>
<td>Versatile acoustic/smoke seal</td>
<td>Flexible durable fins; easy to fit</td>
<td>Acoustic BS EN ISO 10140-2: 2010; BS 476: Pt.31.1: 1983; Durability 1 million cycles; CERTIFIRE CF5179; UL R27972</td>
<td></td>
</tr>
<tr>
<td><strong>3 MEETING STILE</strong></td>
<td>LP1011 x 2</td>
<td>As above</td>
<td>As above</td>
<td>As above</td>
<td></td>
</tr>
<tr>
<td><strong>4 DROP SEAL</strong></td>
<td>LAS8003 si</td>
<td>Face-fixed or semi-mortised acoustic/smoke/fire/thermal drop seal</td>
<td>Mechanism lifts the seal clear of the floor when opened; self-leveling works on uneven floors</td>
<td>Acoustic BS EN ISO 10140-2: 2010; BS 476: Pt.31.1: 1983; Smoke BS 476: Pt.20/22: 1987; Fire BS EN 1634-1: 2014; Durability 1 million cycles; CERTIFIRE CF5179; UL R27972</td>
<td></td>
</tr>
<tr>
<td><strong>5 THRESHOLD PLATE</strong></td>
<td>LAS4002</td>
<td>Low-profile slimline plate</td>
<td>Works with practically any threshold seal</td>
<td>UL R27972</td>
<td></td>
</tr>
<tr>
<td><strong>6 GLAZING SEAL</strong></td>
<td>System-36/7 PLUS</td>
<td>U-shaped, flexible intumescent glazing gasket</td>
<td>Suitable for fire resistant doors/screens; flexible enough for circular vision panels</td>
<td>Fire BS 476: Pt.20/22: 1987; BS EN 1634-1: 2008; Smoke CERTIFIRE CF5060; Glass type Pyrodur® Plus</td>
<td></td>
</tr>
</tbody>
</table>

**ID No. 550**

**DESIGNED FOR:**

---

*Tested in accordance with BS EN ISO 10140-2: 2010

*SOUND REDUCTION INDEX Using components listed above

*CURVE OF REFERENCE VALUES (BS EN ISO 717-1: 2013)
34dB
LP1504DS, LAS8001 si & FF1
SINGLE LEAF | SINGLE SWING | GLAZED | LAMINATED TIMBER CORE | 44MM

ACOUSTIC PERFORMANCE OF DOORSET

SOUND REDUCTION INDEX
Using components listed above
CURVE OF REFERENCE VALUES (BS EN ISO 717-1: 2013)
*Tested in accordance with BS EN ISO 10140-2: 2010

SYSTEM COMPONENTS

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
<th>Description</th>
<th>Key features</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 PERIMETER SEAL</td>
<td>LP1504DS</td>
<td>Combined acoustic/smoke/fire/thermal seal</td>
<td>Exceptional low friction for ease of door operation</td>
<td>Acoustic: BS EN 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Offers continuous smoke seal</td>
<td>Smoke: BS 476: Pt.31.1: 1983</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>BS EN 1634-1: 2014</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Durability: 1 million cycles</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE: CF341, CF330</td>
</tr>
<tr>
<td>2 DROP SEAL</td>
<td>LAS8001 si</td>
<td>Durable acoustic/smoke/thermal drop seal</td>
<td>Mechanism lifts the seal clear of the floor when opened</td>
<td>Acoustic: BS EN 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Self-leveling works on uneven floors</td>
<td>Smoke: BS 476: Pt.31.1: 1983</td>
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<td></td>
<td></td>
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<td>BS EN 1634-1: 2014</td>
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<td></td>
<td></td>
<td></td>
<td>Durability: 1 million cycles</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE: CF5179, UL R27972</td>
</tr>
<tr>
<td>3 GLAZING SEAL</td>
<td>FF1</td>
<td>A pair of bead applied intumescent gaskets for 30 minutes fire resistance</td>
<td>Flexible, quick &amp; easy to install</td>
<td>Fire: BS 476: Pt.20/22: 1987</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Unique design – enables tolerances between door, bead &amp; glass thicknesses to be accommodated</td>
<td>CERTIFIRE: CF327</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1230 x 230 x 15mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fireswiss foam</td>
</tr>
</tbody>
</table>

DESIGNED FOR:

Acoustic Sealing Systems for Door Assemblies
## ACOUSTIC PERFORMANCE OF DOORSET*

**SOUND REDUCTION INDEX**
Using components listed above

**CURVE OF REFERENCE VALUES (BS EN ISO 717-1:2013)**

*Tested in accordance with BS EN ISO 10140-2: 2010

<table>
<thead>
<tr>
<th>Frequency f, Hz</th>
<th>100</th>
<th>250</th>
<th>400</th>
<th>630</th>
<th>1000</th>
<th>1600</th>
<th>2500</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sound Reduction Index R, dB</strong></td>
<td>34</td>
<td>32</td>
<td>30</td>
<td>28</td>
<td>26</td>
<td>24</td>
<td>22</td>
</tr>
</tbody>
</table>

### SYSTEM COMPONENTS — AN AURA SOLUTION

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
<th>Description</th>
<th>Key features</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 PERIMETER SEAL</td>
<td>AAS7503</td>
<td>Stylish acoustic/smoke seal</td>
<td>▶ Square cover plate ideal for butt-jointing or mitring</td>
<td>Acoustic BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Decorative cover plate completely conceals fixings</td>
<td>Smoke BS EN 1634-3: 2004</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Durability BS 476: Pt.31.1: 1983</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Certification CERTIFIRE CF5179 UL R27972</td>
</tr>
<tr>
<td>2 MEETING STILE SEAL AAS7506</td>
<td>Robust acoustic/smoke seal for use on plain/rebated meeting stiles</td>
<td>▶ Leg can be cut out to make way for locks &amp; latches</td>
<td>Acoustic BS EN ISO 10140-2: 2010</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Gently curved for maximum aesthetics</td>
<td>Smoke BS EN 1634-3: 2004</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Durability BS 476: Pt.31.1: 1983</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Certification CERTIFIRE CF5179 UL R27972</td>
</tr>
<tr>
<td>3 THRESHOLD PLATE AAS4508</td>
<td>A stepped threshold plate for effective acoustic sealing</td>
<td>▶ Silicone gasket enhances acoustic containment</td>
<td>Acoustic BS EN ISO 10140-2: 2010</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Acoustic bedding pads reduce vibration &amp; provide cushioning on uneven surfaces</td>
<td>UL R27972</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Reversible tread strips enhance grip</td>
<td></td>
</tr>
</tbody>
</table>

---

**AURA**

The Design Edge

**ID No.**

152

**DESIGNED FOR:**

---

**34dB SOLUTION**

AAS7503, AAS7506 & AAS4508

DOUBLE LEAF | SINGLE SWING |
LAMINATED TIMBER CORE | 54MM

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*Tested in accordance with BS EN ISO 10140-2: 2010

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**www.lorientgroup.com**
35dB SOLUTIONS

SUITABLE FOR
School music rooms / Private offices / Apartments / Consulting rooms
### 35dB

**LP1504DS x 2 & LAS8001 si**

**SINGLE LEAF | SINGLE SWING | LAMINATED TIMBER CORE | 54MM**

#### ACOUSTIC PERFORMANCE OF DOORSET*

![Graph showing Sound Reduction Index R, dB vs Frequency f, Hz. The graph is marked with reference values from BS EN ISO 717-1:2013 and includes curve of reference values.]

*Tested in accordance with BS EN ISO 10140-2: 2010

#### SYSTEM COMPONENTS

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
<th>Description</th>
<th>Key features</th>
<th>Performance</th>
</tr>
</thead>
</table>
| 1 PERIMETER | LP1504DS x 2 | Combined acoustic/smoke/fire/thermal seal        | ▶ Exceptional low friction for ease of door operation  
▶ Offers continuous smoke seal  
▶ Integral antimicrobial protection                                                                 | Acoustic BS EN ISO 10140-2: 2010  
Smoke BS 476: Pt.31.1: 1983  
Fire BS 476: Pt.20/22: 1987  
BS EN 1634-1: 2014  
Durability 1 million cycles  
CERTIFIRE CF341, CF330                                    |
| 2 DROP SEAL | LAS8001 si  | Durable acoustic/smoke/thermal drop seal          | ▶ Mechanism lifts the seal clear of the floor when opened  
▶ Self-leveling works on uneven floors                                                                 | Acoustic BS EN ISO 10140-2: 2010  
Smoke BS 9999  
BS 476: Pt.31.1: 1983  
Fire BS 476: Pt.20/22: 1987  
BS EN 1634-1: 2014  
Durability 1 million cycles  
CERTIFIRE CF5179 UL R27972                                     |
ACOUSTIC PERFORMANCE OF DOORSET*

**SYSTEM COMPONENTS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
<th>Description</th>
<th>Key features</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 PERIMETER</td>
<td>LAS1212K</td>
<td>Highly effective acoustic/smoke seal on-a-stick</td>
<td>▶ Curved fin shape minimises open/closing resistance</td>
<td>Acoustic: BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td>SEAL</td>
<td>Batwing®</td>
<td></td>
<td>▶ Fitted with minimal disruption to door</td>
<td>Smoke: BS EN 1634-3: 2004</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 476: Pt.31.1: 1983</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Durability: 1 million cycles</td>
</tr>
<tr>
<td>2 PERIMETER</td>
<td>LP1504DS</td>
<td>Combined acoustic/smoke/fire/thermal seal</td>
<td>▶ Exceptional low friction for ease of door operation</td>
<td>Acoustic: BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td>SEAL</td>
<td></td>
<td></td>
<td>▶ Offers continuous smoke seal</td>
<td>Smoke: BS 476: Pt.31.1: 1983</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Integral antimicrobial protection</td>
<td>Fire: BS 476: Pt 20/22: 1987</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS EN 1634-1: 2014</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Durability: 1 million cycles</td>
</tr>
<tr>
<td>3 DROP</td>
<td>LAS8001 si</td>
<td>Durable acoustic/smoke/thermal drop seal</td>
<td>▶ Mechanism lifts the seal clear of the floor when opened</td>
<td>Acoustic: BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td>SEAL</td>
<td></td>
<td></td>
<td>▶ Self-levels works on uneven floors</td>
<td>Smoke: BS 9999</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 476: Pt.31.1: 1983</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Durability: 1 million cycles</td>
</tr>
<tr>
<td>SEAL</td>
<td>PLUS</td>
<td></td>
<td>▶ Flexible enough for circular vision panels</td>
<td>Smoke: BS EN 1634-1: 2008</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE: CF5060</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Glass type: Pyrostop®</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1530 x 300 x 15mm</td>
</tr>
</tbody>
</table>

*Tested in accordance with BS EN ISO 10140-2: 2010

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**SOUND REDUCTION INDEX**

Using components listed above

**CURVE OF REFERENCE VALUES (BS EN ISO 717-1: 2013)**

**DESIGNED FOR:**

- **35dB SOLUTION**

---

ID No. 64
**35dB**

**LAS1212, LAS1011, LAS1011 x 2, LAS1016 x 2 & LAS4002**

**DOUBLE LEAF | SINGLE SWING | LAMINATED TIMBER CORE | 54MM**

**ACOUSTIC PERFORMANCE OF DOORSET**

*Tested in accordance with BS EN ISO 10140-2: 2010*

---

**SYSTEM COMPONENTS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
<th>Description</th>
<th>Key features</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 PERIMETER SEAL</td>
<td>LAS1212</td>
<td>Batwing® Highly effective acoustic/smoke seal</td>
<td>◦ Curved fin shape minimises open/closing resistance&lt;br&gt;◦ Can be fitted with minimal disruption to door</td>
<td>Acoustic BS EN ISO 10140-2: 2010&lt;br&gt;Smoke BS EN 1634-3: 2004&lt;br&gt;BS 476: Pt.31.1: 1983&lt;br&gt;Durability 1 million cycles&lt;br&gt;CERTIFIRE CF5179 UL R27972</td>
</tr>
<tr>
<td>2 PERIMETER SEAL</td>
<td>LAS1011</td>
<td>Versatile acoustic/smoke seal</td>
<td>◦ Flexible durable fins&lt;br&gt;Easy to fit</td>
<td>Acoustic BS EN ISO 10140-2: 2010&lt;br&gt;Smoke BS EN 1634-3: 2004&lt;br&gt;BS 476: Pt.31.1: 1983&lt;br&gt;Durability 1 million cycles&lt;br&gt;CERTIFIRE CF5179 UL R27972</td>
</tr>
<tr>
<td>3 MEETING STILE SEALS</td>
<td>LAS1011 x 2</td>
<td>As above</td>
<td>◦ As above</td>
<td>As above</td>
</tr>
<tr>
<td>4 DOOR BOTTOM SEALS</td>
<td>LAS1016 x 2</td>
<td>As above</td>
<td>◦ Flexible durable 6mm fins</td>
<td>As above</td>
</tr>
<tr>
<td>5 THRESHOLD PLATE</td>
<td>LAS4002</td>
<td>Low-profile slimline plate</td>
<td>◦ Works with practically any threshold sea&lt;br&gt;◦ Can prevent rain, draught &amp; smoke penetration</td>
<td>UL R27972</td>
</tr>
</tbody>
</table>

**SOUND REDUCTION INDEX**

Using components listed above

**CURVE OF REFERENCE VALUES (BS EN ISO 717-1: 2013)**

---

Acoustic Sealing Systems for Door Assemblies
**ACOUSTIC PERFORMANCE OF DOORSET**

**DESIGNED FOR:**

**35dB**

**LAS1212, LP1504DS & LAS8001 si**

**SINGLE LEAF | SINGLE SWING | SOLID CHIPBOARD CORE | 54MM**

---

**SOUND REDUCTION INDEX**

Using components listed above

**CURVE OF REFERENCE VALUES (BS EN ISO 717-1: 2013)**

*Tested in accordance with BS EN ISO 10140-2: 2010*

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**SYSTEM COMPONENTS**

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<th>Product</th>
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<tr>
<td>1 PERIMETER SEAL</td>
<td>LAS1212</td>
<td>Batwing®</td>
<td>Curved fin shape minimises open/closing resistance</td>
<td>Acoustic: BS EN ISO 10140-2: 2010</td>
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<td></td>
<td></td>
<td>Can be fitted with minimal disruption to door</td>
<td>Smoke: BS 476: Pt.31:1: 1983</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>Durability: 1 million cycles</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE: CF5179, UL R27972</td>
</tr>
<tr>
<td>2 PERIMETER SEAL</td>
<td>LP1504DS</td>
<td>Combined acoustic/smoke/fire/thermal seal</td>
<td>Exceptional low friction for ease of door operation</td>
<td>Acoustic: BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Offers continuous smoke seal</td>
<td>Smoke: BS 476: Pt.31:1: 1983</td>
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<td>Durability: 1 million cycles</td>
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<tr>
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<td></td>
<td></td>
<td>CERTIFIRE: CF341, CF330</td>
</tr>
<tr>
<td>3 DROP SEAL</td>
<td>LAS8001 si</td>
<td>Durable acoustic/smoke/thermal drop seal</td>
<td>Mechanism lifts the seal clear of the floor when opened</td>
<td>Acoustic: BS EN ISO 10140-2: 2010</td>
</tr>
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<td></td>
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<td></td>
<td>Self-leveling works on uneven floors</td>
<td>Smoke: BS 9999, BS 476: Pt.31:1: 1983</td>
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<td></td>
<td>Durability: 1 million cycles</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE: CF5179, UL R27972</td>
</tr>
</tbody>
</table>

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**ID No.**

552

**DESIGNED FOR:**

- Multimedia
- Audio
- Visual aids
- Handicapped
- English
**ACOUSTIC PERFORMANCE OF DOORSET**

**DESIGNED FOR:** Acoustic Sealing Systems for Door Assemblies

**35dB SOLUTION**

**LAS1212K, LP1504, AAS7506, LAS4014 si & System-36/15 PLUS**

**DOUBLE LEAF | SINGLE SWING | GLAZED | SOLID CHIPBOARD CORE | 54MM**

**SOUND REDUCTION INDEX**

Using components listed above

**CURVE OF REFERENCE VALUES (BS EN ISO 717-1: 2013)**

*Tested in accordance with BS EN ISO 10140-2: 2010*

**SYSTEM COMPONENTS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
<th>Description</th>
<th>Key features</th>
<th>Performance</th>
</tr>
</thead>
</table>
| 1 PERIMETER  | LAS1212K         | Highly effective acoustic/smoke seal on-a-stick                            | Curved fin shape minimises open/closing resistance.  
Leg can be cut out to make way for locks & latches | Acoustic BS EN ISO 10140-2: 2010  
Smoke BS EN 1634-3: 2004  
BS 476: Pt. 31.1: 1983  
Durability 1 million cycles  
CERTIFIRE CF5179  
UL R27972 |
| SEAL         | Batwing®         |                                                                            |                                                                              |                                                                            |
| 2 PERIMETER  | LP1504           | Fire seal                                                                  | Integral antimicrobial protection                                             | Fire CERTIFIRE BS 476: Pt. 20/22: 1987  
CERTIFIRE CF341, CF330 |
| SEAL         |                                                              |                                                                            |                                                                              |                                                                            |
| 3 MEETING    | AAS7506          | Robust acoustic/smoke seal for use on plain/rebated meeting stiles        |                                                                              | Acoustic BS EN ISO 10140-2: 2010  
Smoke BS EN 1634-3: 2004  
BS 476: Pt. 31.1: 1983  
Durability 1 million cycles  
CERTIFIRE CF5179  
UL R27972 |
| STILE SEAL   |                                                              |                                                                            |                                                                              |                                                                            |
| 4 THRESHOLD  | LAS4014 si       | Heavy duty threshold plate                                                 | Helps resist rain, draught & smoke penetration                               | UL R27972 |
| PLATE        | System-36/15 PLUS|                                                                            |                                                                              |                                                                            |
| 5 GLAZING    | System-36/15 PLUS| U-shaped flexible intumescent glazing gasket                              | Suitable for fire resistant doors/screens  
Flexible enough for circular vision panels | Fire BS 476: Pt. 20/22: 1987  
Smoke BS EN 1634-1: 2008  
CERTIFIRE CF5060  
Glass type 1570 x 300 x 15mm Pyrostop® |
| SEAL         |                                                              |                                                                            |                                                                              |                                                                            |

**ID No. 77**

**DESIGNED FOR:**

- Acoustic Sealing Systems for Door Assemblies
ACOUSTIC PERFORMANCE OF DOORSET*

![Graph showing Sound Reduction Index (R) vs Frequency (f)]

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
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<th>Key features</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 PERIMETER SEAL</td>
<td>AAS7503</td>
<td>Stylish acoustic/smoke seal</td>
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<td></td>
<td></td>
<td>▶ Decorative cover plate completely conceals fixings</td>
<td>Smoke BS EN 1634-3: 2004</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td>BS 476: Pt.31:1: 1983</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Durability 1 million cycles</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE CF5179</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>UL R27972</td>
</tr>
<tr>
<td>2 DROP SEAL</td>
<td>AAS8501</td>
<td>Highly effective acoustic/smoke/thermal drop seal</td>
<td>▶ Self-leveling featuring a unique wrap around gasket</td>
<td>Acoustic BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▶ Clever colour coded band assists with drop seal adjustment</td>
<td>Smoke BS EN 1634-3: 2004</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BS 476: Pt.31:1: 1983</td>
</tr>
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<td>Durability 1 million cycles</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE CF5179</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>UL R27972</td>
</tr>
</tbody>
</table>

*Tested in accordance with BS EN ISO 10140-2: 2010

SOUND REDUCTION INDEX
Using components listed above
CURVE OF REFERENCE VALUES (BS EN ISO 717-1: 2013)

35dB SOLUTION

ID No. 229

DESIGNED FOR:

AURA
The Design Edge
Acoustic Sealing Systems for Door Assemblies
40dB+ SOLUTIONS

SUITABLE FOR
Recording studios / Auditoria / Theatres / Courts / Interview rooms
40dB

LP1504DS x 2, LP1504DS x 2, LP1504, LAS1016 x 2 & LAS4012

DOUBLE LEAF | DOUBLE SWING | LAYERED ACOUSTIC CORE | 54MM

ACOUSTIC PERFORMANCE OF DOORSET*

DESIGNED FOR:
Acoustic Sealing Systems for Door Assemblies

**Tested in accordance with BS EN ISO 10140-2: 2010**

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
<th>Description</th>
<th>Key features</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 MEETING STILE SEALS</td>
<td>LP1504DS x 2</td>
<td>As above</td>
<td>As above</td>
<td>As above</td>
</tr>
<tr>
<td>5 THRESHOLD PLATE</td>
<td>LAS4012</td>
<td>Medium duty low profile threshold plate</td>
<td>Only 6mm high ideal for wheeled traffic  Suitable for rain, draught &amp; smoke protection when used with a threshold seal</td>
<td>UL R27972</td>
</tr>
</tbody>
</table>

*Tested in accordance with BS EN ISO 717-1: 2013

**SOUND REDUCTION INDEX**
Using components listed above

**CURVE OF REFERENCE VALUES (BS EN ISO 717-1: 2013)**

<table>
<thead>
<tr>
<th>Frequency f, Hz</th>
<th>Sound Reduction Index R, dB</th>
</tr>
</thead>
<tbody>
<tr>
<td>150</td>
<td>40</td>
</tr>
<tr>
<td>300</td>
<td>40</td>
</tr>
<tr>
<td>630</td>
<td>40</td>
</tr>
<tr>
<td>1250</td>
<td>40</td>
</tr>
<tr>
<td>2500</td>
<td>40</td>
</tr>
</tbody>
</table>

![Image of door system components](image-url)
**ACOUSTIC PERFORMANCE OF DOORSET**

![Graph showing sound reduction index vs frequency]

**SYSTEM COMPONENTS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
<th>Description</th>
<th>Key features</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> PERIMETER</td>
<td><strong>LAS7003 si</strong></td>
<td>Medium duty acoustic/smoke seal</td>
<td>Seal is squeezed between door and frame, thus compensating for warped or unevenly hung doors.</td>
<td>Acoustic BS EN ISO 10140-2: 2010, Smoke BS EN 1634-3: 2004, BS 476: Pt. 31.1: 1983, Durability 1 million cycles</td>
</tr>
<tr>
<td><strong>2</strong> DROP SEAL</td>
<td>LAS8001 si</td>
<td>A stepped threshold plate for effective acoustic sealing</td>
<td>Silicone gasket enhances acoustic containment.</td>
<td>Acoustic BS EN ISO 10140-2: 2010, UL R27972</td>
</tr>
</tbody>
</table>

**SERVICE DECISION**

- **DESIGNED FOR:**
- **ID No.** 551

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*S: Tested in accordance with BS EN ISO 10140-2: 2010*
**SYSTEM COMPONENTS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
<th>Description</th>
<th>Key features</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 PERIMETER SEAL</td>
<td>LAS1212</td>
<td>Batwing®</td>
<td>Highly effective acoustic/smoke seal</td>
<td>Acoustic: BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fitted with minimal disruption to door</td>
<td>Durability: 1 million cycles</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE: CF5179, UL R27972</td>
</tr>
<tr>
<td>2 MEETING STILE SEALS</td>
<td>LP1011 x 2</td>
<td>Versatile acoustic/smoke seal</td>
<td>Flexible durable fins, Easy to fit</td>
<td>Acoustic: BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Durability: 1 million cycles</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE: CF5179, UL R27972</td>
</tr>
<tr>
<td>3 DROP SEAL</td>
<td>LAS8001</td>
<td>si</td>
<td>Durable acoustic/smoke/thermal drop seal</td>
<td>Acoustic: BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mechanism lifts the seal clear of the floor when opened</td>
<td>Smoke: BS 9999, BS 476: Pt. 31: 1983</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Durability: 1 million cycles</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE: CF5179, UL R27972</td>
</tr>
<tr>
<td>4 THRESHOLD PLATE</td>
<td>AAS4508</td>
<td></td>
<td>A stepped threshold plate for effective acoustic sealing</td>
<td>Acoustic: BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Silicone gasket enhances acoustic containment</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Acoustic bedding pads reduce vibration &amp; provide cushioning on uneven surfaces</td>
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<td></td>
</tr>
</tbody>
</table>

**ACOUSTIC PERFORMANCE OF DOORSET**

*SOUND REDUCTION INDEX
Using components listed above

*CURVE OF REFERENCE VALUES (BS EN ISO 717-1: 2013)

*Tested in accordance with BS EN ISO 10140-2: 2010

40dB
LAS1212, LAS1011 x 2, LAS8001 si & AAS4508
DOUBLE LEAF | SINGLE SWING | HIGH DENSITY ACOUSTIC CORE | 45MM

**DESIGNED FOR:**

Acoustic Sealing Systems for Door Assemblies

ID No. 553
**ACOUSTIC PERFORMANCE OF DOORSET**

*Tested in accordance with BS EN ISO 10140-2: 2010*

**SYSTEM COMPONENTS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
<th>Description</th>
<th>Key features</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 PERIMETER</td>
<td>LAS1010</td>
<td>Highly effective acoustic/smoke seal</td>
<td>Curved fin shape minimises open/closing resistance</td>
<td>Acoustic: BS EN ISO 10140-2: 2010; Smoke: BS EN 1634-3: 2004; Durability: 1 million cycles</td>
</tr>
<tr>
<td>SEAL</td>
<td>Batwing®</td>
<td></td>
<td>Fitted with minimal disruption to door</td>
<td>CERTIFIRE: CF5179; UL R27972</td>
</tr>
<tr>
<td>SEAL</td>
<td></td>
<td></td>
<td>Continuous smoke seal; Integral antimicrobial protection</td>
<td>CERTIFIRE: CF5179</td>
</tr>
<tr>
<td>3 DOOR</td>
<td>LAS1016 x 2</td>
<td>Versatile acoustic/smoke seal</td>
<td>Flexible durable 6mm fins; Easy to fit</td>
<td>Acoustic: BS EN ISO 10140-2: 2010; Smoke: BS 9999; Fire: BS 476: Pt 20/22: 1987; Durability: 1 million cycles</td>
</tr>
<tr>
<td>BOTTOM</td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE: CF5179</td>
</tr>
<tr>
<td>SEALS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 THRESHOLD</td>
<td>LAS4010</td>
<td>Medium duty low profile threshold plate</td>
<td>Only 6mm high; Suitable for rain, draught &amp; smoke protection when used with a threshold seal</td>
<td>UL R27972</td>
</tr>
<tr>
<td>PLATE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 GLAZING</td>
<td>System-36/15</td>
<td>Flexible U-shaped intumescent gasket for 30</td>
<td>Suitable for use with range of standard fixing beads; Flexible enough to be fitted to curved corners &amp; circular vision panels</td>
<td>Fire: BS 476: Pt 20/22: 1987; Smoke: BS EN 1634-1: 2008; Glass type: Pyrostop®</td>
</tr>
<tr>
<td>SEAL</td>
<td>PLUS</td>
<td>minute fire resistant doors/screens</td>
<td></td>
<td>CERTIFIRE: CF5060; 1230x230x15mm</td>
</tr>
</tbody>
</table>
**41dB**

LP1504DS x 2, LP1504DS x 2, LAS1016 x 2, LAS4010 & System-36/23 PLUS

**DOUBLE LEAF | SINGLE SWING | GLAZED | LAYERED ACOUSTIC CORE | 59MM**

**ACOUSTIC PERFORMANCE OF DOORSET**

**DESIGNED FOR:** Acoustic Sealing Systems for Door Assemblies

**41dB SOLUTION**

**SOUND REDUCTION INDEX**

Using components listed above

**CURVE OF REFERENCE VALUES (BS EN ISO 717-1: 2013)**

*Tested in accordance with BS EN ISO 10140-2: 2010

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**SYSTEM COMPONENTS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Product</th>
<th>Description</th>
<th>Key features</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 PERIMETER SEALS</td>
<td>LP1504DS x 2</td>
<td>Combined acoustic/smoke/fire/thermal seal</td>
<td>EXCEPTIONAL LOW FRICTION FOR EASE OF DOOR OPERATION</td>
<td>Acoustic BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Offers continuous smoke seal</td>
<td>Smoke BS 476: Pt.31:1: 1983</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Integral antimicrobial protection</td>
<td>Fire BS 476: Pt.20/22: 1987</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Durability BS EN 1634-1: 2014</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Durability 1 million cycles</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE CF341, CF330</td>
</tr>
<tr>
<td>2 MEETING STILE SEALS</td>
<td>LP1504DS x 2</td>
<td>As above</td>
<td>As above</td>
<td>As above</td>
</tr>
<tr>
<td>3 DOOR BOTTOM SEALS</td>
<td>LAS1016 x 2</td>
<td>Versatile acoustic/smoke seal</td>
<td>Flexible durable 6mm fins</td>
<td>Acoustic BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Easy to fit</td>
<td>Smoke BS 9999</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fire BS 476: Pt.31:1: 1983</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Durability BS EN 1634-3: 2004</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Durability 1 million cycles</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE CF5179</td>
</tr>
<tr>
<td>4 THRESHOLD PLATE</td>
<td>LAS4010</td>
<td>Medium duty low profile threshold plate</td>
<td>Only 6mm high</td>
<td>UL R27972</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Suitable for rain, draught &amp; smoke protection when used with a threshold seal</td>
<td></td>
</tr>
<tr>
<td>5 GLAZING SEAL</td>
<td>System-36/23 PLUS</td>
<td>Flexible U-shaped intumescent gasket for 30 minute fire resistant doors/screens</td>
<td>Suitable for use with range of standard fixing beads</td>
<td>Smoke BS 476: Pt.20/22: 1987</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fire</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE CF5060</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Glass type Pyrostop®</td>
</tr>
</tbody>
</table>
LAS1010, LP1504DS, LAS1016 x 2 & LAS4010
SINGLE LEAF | SINGLE SWING | LAYERED ACOUSTIC CORE | 44MM

ACOUSTIC PERFORMANCE OF DOORSET*

SOUND REDUCTION INDEX
Using components listed above
CURVE OF REFERENCE VALUES (BS EN ISO 717-1: 2013)
*Tested in accordance with BS EN ISO 10140-2: 2010

SYSTEM COMPONENTS

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<thead>
<tr>
<th>Type</th>
<th>Product</th>
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<th>Key features</th>
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<tbody>
<tr>
<td>1 PERIMETER SEAL</td>
<td>LAS1010</td>
<td>Batwing®</td>
<td>Highly effective acoustic/smoke seal</td>
<td>Curved fin shape minimises open/closing resistance.</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Fitted with minimal disruption to door</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 PERIMETER SEAL</td>
<td>LP1504DS</td>
<td>Combined acoustic/smoke/fire/thermal seal</td>
<td>Exceptional low friction for ease of door operation</td>
<td>Acoustic BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Offers continuous smoke seal</td>
<td>Smoke BS EN 1634-3: 2004</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Integral antimicrobial protection</td>
<td>Fire BS 476: Pt. 20/22: 1987</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE CF341, CF330</td>
</tr>
<tr>
<td>3 DOOR BOTTOM SEALS</td>
<td>LAS1016 x 2</td>
<td>Versatile acoustic/smoke seal</td>
<td>Flexible durable 6mm fins</td>
<td>Acoustic BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Easy to fit</td>
<td>Smoke BS EN 1634-3: 2004</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE CF5179</td>
</tr>
<tr>
<td>4 THRESHOLD PLATE</td>
<td>LAS4010</td>
<td>Medium duty low profile threshold plate</td>
<td>Only 6mm high ideal for wheeled traffic</td>
<td>Acoustic BS EN ISO 10140-2: 2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Suitable for rain, draught &amp; smoke protection when used with a threshold seal</td>
<td>Smoke BS EN 1634-3: 2004</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CERTIFIRE CF5179</td>
</tr>
</tbody>
</table>

DESIGNED FOR:
Technical References

Lorient is quality assured under the disciplines of BS EN ISO 9001: 2008. Accreditation to this standard is a guarantee that we conduct our business to the complete satisfaction of our customers with regard to design solutions, manufacturing consistency and management procedures.

In addition, this internationally recognised standard for quality management generates customer confidence and eliminates the risk of poor performance. Regular audits of our company procedures are undertaken by qualified BSI staff to ensure ongoing compliance with all aspects of the standard.

Fitting Instructions – Lorient Intumescent Seals

Careful fitting and attention to detail are essential. Seals must be fitted into a groove just wide enough and deep enough to accept them. The PVC casing should be flush with the surrounding surface.

- Ensure the groove is dry, flat, clean and free of dust and grease.
- Peel off the protective tape.
- Press the seal into position to activate the adhesive backing properties.
- Application should be at a temperature no less than 10°C.

All our intumescent seals are supplied with square cut ends to enable neat butt joints to be made. The seals may be cut by the installer using a hacksaw, sharp knife or shears.

Once installed our fire seals may, if required, be painted over. Do not paint the flexible elements of combined acoustic, smoke and fire seals. Paint needs to fully dry and cure before the seals are installed.

Comprehensive fitting instructions are included with each consignment.

Handling and Storage

No special precautions are required when handling our fire seals but they should always be treated with care and not bent or twisted. Safety data sheets are available on request. The products do not fall within the scope of COSHH regulations.

Our intumescent seals should be stored flat in a clean, dry, dust-free area away from heat and at a storage temperature of between 5°C and 40°C.

Maintenance

Periodic inspection/cleaning is recommended for all types of seals. The appearance and performance of brush seals will benefit from a wipe with a damp cloth at least once a year. Worn or damaged seals should be replaced without delay.

Further guidance is contained in the relevant sections of BS 8214: 1990 “Code of practice for Fire Door assemblies”.

Guarantee of Origin

Each production batch of Lorient seals is laser engraved unobtrusively on the edge of the profile with the Lorient name and a code reference. This ensures the product and details of its production can be traced should the need arise.

Unidentifiable substitute products should never be accepted.

Made in Britain

We are proud to have been granted the prestigious Made in Britain marque for our products that are designed and manufactured at our main facility in South West of the UK.
Accreditations

All the Lorient combined fire and smoke seals featured in this brochure have the British Board of Agrément Approval (92/2841) and are CERTIFIRE certificated (CF330/CF341/CF5179/CF5060/CF5033/CF327).

BBA approvals provide independent assurance for the designer, specifier and end-user as to the 'fitness for purpose' of building products.

Operated by Exova Warringtonfire, CERTIFIRE is an accredited independent product conformity scheme that requires products to meet the requirements of the tests, to add minimal resistance to opening and closing forces, to prove long term performance under a variety of service conditions, and to be permanently marked for easy identification.

UL is a global independent safety science company that tests a diverse range of products; representative samples of a product must be tested and meet UL’s stringent requirements to carry the marque. These requirements are based primarily on UL’s published and nationally recognised Standards for Safety. Backed by more than a century of proven safety science expertise, businesses, consumers and regulatory authorities around the world recognise the trusted rigour and technical excellence of UL certifications. Lorient is proud to have achieved the UL Mark on many of its products. These are detailed on individual pages.
PROFESSIONAL DEVELOPMENT SEMINARS

We offer three fully-accredited CPD seminars. Impartially presented by knowledgeable speakers, the seminars are structured to be technically informative, and give practical advice.

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 430 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.
We’ve been designing and manufacturing high performance sealing systems for over 35 years.

And we’re passionate about the products we make. Our dedicated R&D and testing facilities rigorously put our sealing systems through their paces — enabling us to enhance product form and function. We’ve built a strong reputation for design innovation; and for producing the highest quality sealing systems embracing acoustic, smoke, fire and thermal containment; as well as accessibility.

Respected throughout the industry for our technical expertise, we play an active role in helping to shape standards and best practice. We believe in providing excellent levels of customer service; and are at our best working in partnership with you.