

### Acoustic test evidence - Lorient sealing systems

dB Rw	Blank Manufacturer	Type	Glazed/Flush*	Lorient Seal Specification
36	Strebord	Particle board core	15mm Pyrostop with System-36/15	Fully caulked, representing theoretical maximum performance
<b>35</b>	Strebord	Particle board core	15mm Pyrostop with System-36/15	LP1504DS, IS1212, IS8010 si, IS4220
<b>35</b>	Strebord	Particle board core	15mm Pyrostop with System-36/15	IS1212, IS8010 si
<b>35</b>	Halspan	Particle board core	15mm Pyrostop with System-36/15	IS1212, IS8010 si
44mm 34	Flamebreak	Laminated board core	15mm Pyrostop with System-36/15	Fully caulked, representing theoretical maximum performance
<b>31</b>	Flamebreak	Laminated board core	15mm Pyrostop with System-36/15	LP1504DS, IS8010 si
<b>33</b>	Flamebreak	Laminated board core	15mm Pyrostop with System-36/15	LP1504DS, IS1212, IS8010 si
<b>32</b>	Halspan	Particle board core	Flush	IS1212, IS8010 si
<b>30</b>	Flamebreak	Laminated board core	Flush	IS1212, IS8010 si
<b>31</b>	Strebord	Particle board core	Flush	LP1504DS, IS8010 si

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<b>36</b>	Flamebreak	Laminated board core	15mm Pyrostop with System-36/15	LP2004DS, IS1212, IS8010 si
<b>35</b>	Flamebreak	Laminated board core	15mm Pyrostop with System-36/15	IS1212, IS8010 si
<b>35</b>	Flamebreak	Laminated board core	15mm Pyrostop with System-36/15	LP2004DS, IS8010 si
<b>35</b>	Strebord	Particle board core	15mm Pyrostop with System-36/15	IS1212, IS8010 si
<b>35</b>	Strebord	Particle board core	15mm Pyrostop with System-36/15	LP2004DS, IS8010 si

\*denotes vision size:1570mm x 300mm  
Errors and Omissions Excepted

#### Lorient Polyproducts Ltd

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# Real Doorsets Real Solutions acoustic door sealing systems





Wherever noise influences human activity, effective acoustic sealing is essential. In schools, hospitals and multiple occupancy buildings noise is an inherent problem; and in many cases a regulatory issue too. We've designed this leaflet to provide you with cost-effective, high-performance door solutions to help you meet all the requirements for sound containment, fire and smoke containment and accessibility.

**Acoustics - back to basics**

Door assemblies are an integral part of buildings, and while there must be gaps around the perimeter of the door for it to operate efficiently, these gaps also allow sound to pass through. Sealing gaps around the door is crucial, to reduce the amount of sound entering or leaving the room.

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.

Our seals are rigorously tested and proven to achieve acoustic ratings up to 35dB Rw, to meet the requirements of Approved Document E. Requirement E1 covers "dwelling-houses, flats and rooms for residential purposes": a minimum acoustic performance of 29dB Rw is required.

Building Bulletin 93 highlights the need for good acoustic conditions in schools, and this affects doors as well. Specific acoustic performance ratings for door assemblies are stated - please note, these are **minimum** requirements:

- All spaces except music rooms: 30dB Rw
- Music rooms: 35dB Rw



**Comprehensive test evidence**

Lorient holds an ever-increasing library of acoustic test evidence. Our seals undergo comprehensive tests to establish the airborne sound insulation performance. Tests are carried out at Sound Research Laboratories - a UKAS approved testing laboratory. What's more, we now have even more evidence to shout about, presented on the following pages.

**Tested under realistic conditions**

*“ We test our acoustic, smoke and fire seals with “off the shelf” doors in real door scenarios, for example with an accepted industry standard gap size of 3-4 mm. Rest assured, all Lorient sealing systems are acoustically tested in their everyday operational mode, and many are tested with long vision panels to meet the requirements of Approved Document M. ”*

Paul Chudley, Technical Services Director

**Variations of door core**

Lorient acoustic door sealing solutions have been tested with a range of common door cores, including:

- Halspan
- Flamebreak
- Strebord
- Blankfort
- Moralt
- Sauerland

A summary of some of the results achieved is shown on page 6; contact the Lorient technical team for full details on **01626 834252**.

**Meeting the requirements**

With a multitude of building requirements, it is vital to ensure that the sealing system chosen will meet them all. The Lorient range centres on a unique collection of seals, which can provide the highest standard of protection against sound (Approved Document E); smoke at all temperatures and fire (Approved Document B); while offering low frictional resistance for ease of door operation (Approved Document M). Furthermore, Lorient's seals are tested for air tightness under BS 476: Pt. 31.1 - so will make a positive contribution to thermal containment.

Lorient products are designed with all the above requirements in mind and are tested for durability, many achieving over 1,000,000 cycles on full size door assemblies without failure. The solutions shown in this leaflet provide an integrated approach, meeting the requirements of Approved Documents E, B and M.



**Use of symbols**

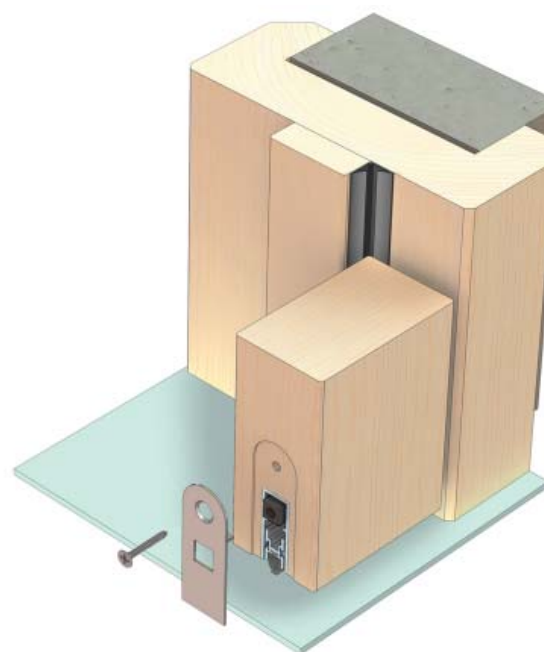


**IS1212 & IS8010 si**

Single Leaf / Single Swing  
Particle Board  
44mm door leaf





**35dB<sub>Rw</sub>**  
STC



**PRODUCT IN FOCUS:**

**IS1212 Batwing® Acoustic and Smoke Perimeter Seal**

The Batwing® seal minimises the opening and closing resistance of the door leaf due to its unique, curved elastomeric fins. These also ensure ongoing performance and durability in service.

- Symmetrical design ensures fins are always in contact with two surfaces of the door leaf, creating an air chamber to provide excellent acoustic performance - tested in accordance with BS EN ISO 140-3: 1995.
- Proven smoke performance up to 200°C.
- IS1212 Batwing® carries:  

Visit [www.lorientuk.com](http://www.lorientuk.com) for further information.

Please note: For fire rated performance a fireseal must also be fitted as part of this sealing system.

### LP2004DS & IS8010 si

Single Leaf / Single Swing  
Particle board core / Laminated board core  
54mm door leaf



**35dB<sup>Rw</sup><sub>STC</sub>**

#### PRODUCT IN FOCUS:

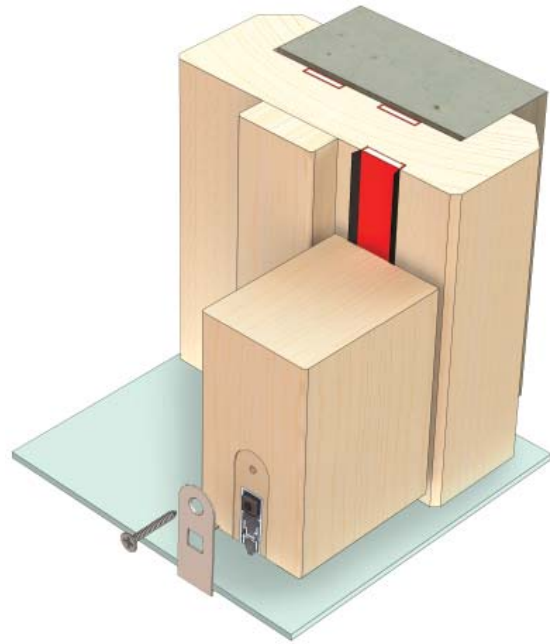
##### DS Acoustic, Smoke and Fire Perimeter Seal

The DS is a unique product combining three seals in one; offering the ultimate in acoustic, smoke and fire containment, coupled with outstanding properties of low friction and high durability.

- Unique elastomeric dual fins provide continuous acoustic and smoke protection at ironmongery points.
- Superior acoustic performance – tested in accordance with BS EN ISO 140-3: 1995.
- Successfully tested for fire and smoke performance in accordance with BS 476: Pt.22: 1987 and BS 476: Pt.31.1:1983.

▪ The DS seal carries: CF330 / CF341

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### IS1212 & IS8010 si

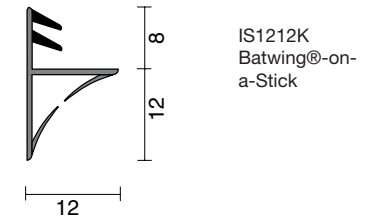
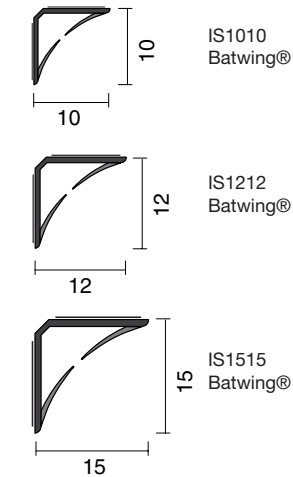
Single Leaf / Single Swing  
Particle board core  
44mm door leaf



**32dB<sup>Rw</sup><sub>STC</sub>**

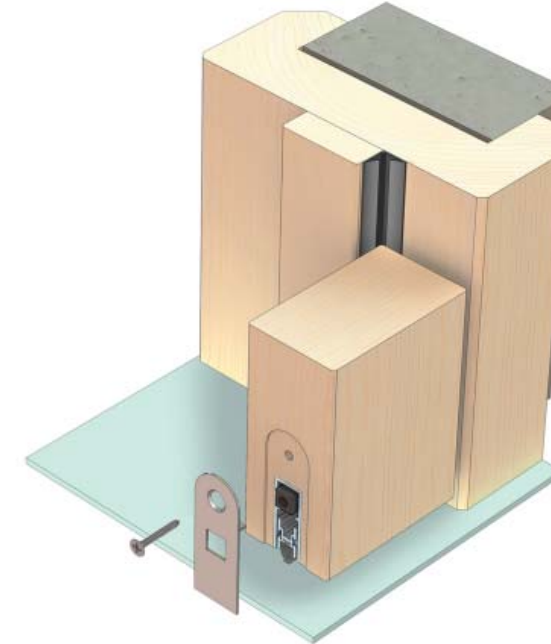
#### PRODUCT IN FOCUS:

##### IS1212 Batwing® Acoustic and Smoke Perimeter Seal



Available in white, cream, light brown, dark brown, silver, grey and black.

Please note: For fire rated performance a fireseal must also be fitted as part of this sealing system.



### IS1212 & IS8010 si

Single Leaf / Single Swing  
Particle board core / Laminated board core  
54mm door leaf



**35dB<sup>Rw</sup><sub>STC</sub>**

#### PRODUCT IN FOCUS:

##### IS8010 si Automatic Threshold (Door Bottom) Seal

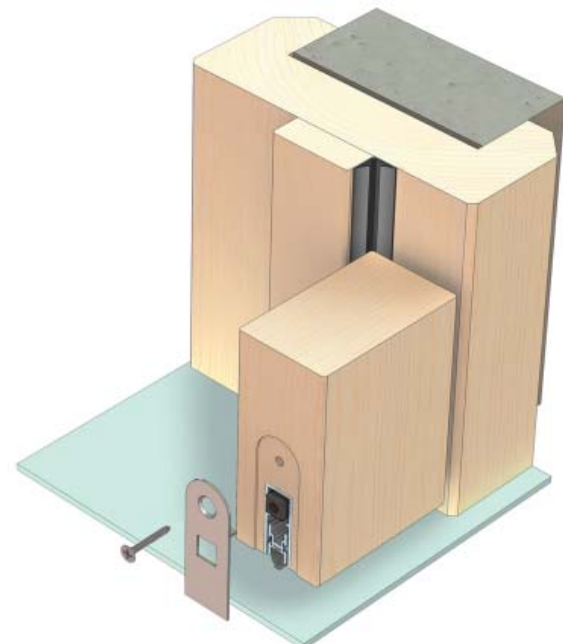
A medium duty, automatic threshold seal featuring a high efficiency mechanism. The seal is lifted clear of the floor as soon as the door is opened by a few millimetres – ensuring the door remains easy to operate.

- Internal fins provide superior acoustic properties – tested in accordance with BS EN ISO 140-3: 1995.
- Meets the smoke leakage performance requirements of BS 5588 when tested in accordance with BS 476: Pt.31.1: 1983.
- Also fire tested under the conditions of BS EN 1634-1: 2000.
- Tested for up to 60 minutes under the conditions of BS 476: Pt.20/22: 1987 without compromising fire resistance.

▪ The IS8010 si carries: CF136

Visit [www.lorientuk.com](http://www.lorientuk.com) for further information.

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### LP1504DS & IS8010 si

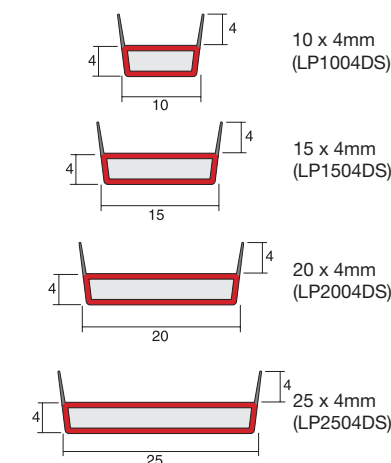
Single Leaf / Single Swing  
Particle board core / Laminated board core  
44mm door leaf



**32dB<sup>Rw</sup><sub>STC</sub>**

#### PRODUCT IN FOCUS:

##### DS Acoustic, Smoke and Fire Perimeter Seal



Available in a range of standard colours, with black fins – to blend or contrast with surroundings as required.

