

February 2006 Special Edition

It's all about Batwing®...

Welcome to this special edition of Lorient Express, celebrating one of our flagship products, the Lorient Batwing®.

For 15 years the Lorient Batwing® has led the field in smoke and acoustic containment solutions for doors. Its straightforward approach has made it popular both for new build and retrofit applications, and it has been installed on high profile buildings all around the world.

So why this special edition newsletter?

To launch the new Lorient Curved Fin Batwing®.

The new product offers all the benefits of the original Lorient Batwing®, but with some very important differences. Read on to find out more about the new Curved Fin Batwing®, and to discover what makes the Lorient Batwing® so unique.

Lorient's new smooth operator provides the all-round solution!



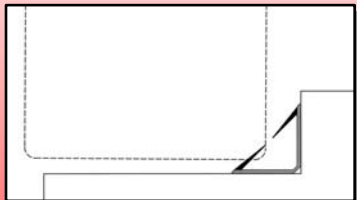
The Lorient Batwing® has long set the standard for smoke and acoustic containment for door assemblies. But now, with the new Curved Fin Batwing®, Lorient have proved that the best can be made even better! Its distinctive straight fins

have now been re-engineered into a subtle curved design, providing easier operation, and increased durability while retaining all the smoke and acoustic benefits of the original Lorient Batwing®.

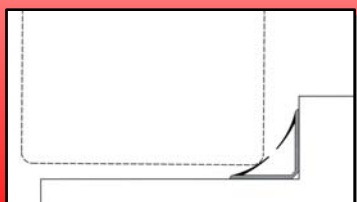
Rounded approach...

These diagrams show why the subtle differences of the new design have such a significant effect on the opening and closing forces of a typical door leaf. In fact, the new Curved Fin Batwing® needs only 1/3rd of the effort of its predecessor and that of competitor products. This greatly contributes to the accessibility requirements of Approved Document M and, furthermore, increases the longevity of the product in everyday service.

A door closing on the original design Lorient Batwing®



The new Curved Fin Batwing® provides even less resistance to opening and closing forces.



Straight talking

Recent revisions in the Approved Documents to the Building Regulations for England & Wales have put more demands than ever on doors. Following the 2003 revision to **Document E**, many doors must now demonstrate an acceptable level of acoustic performance. With the 2004 revision to **Document M**, access for all – not only disabled people – is high on the agenda, so doors must provide a minimal barrier to access, and are required to be much easier to operate. Approved **Document B** continues to require the vast majority of fire doors to provide smoke protection as well. This is vital for life safety, as smoke travels much faster and much further than the fire itself. Even when cooled to ambient temperature, remote from the source of the fire, smoke remains deadly toxic.

All-round winner

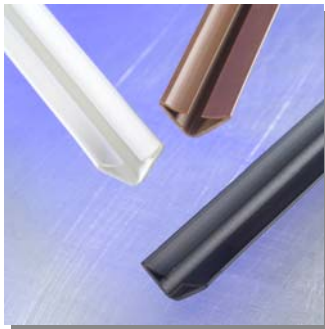
The Lorient Batwing® provides the solution to the requirements of all three Approved Documents, in one easy-to-fit product. With a proven smoke performance from ambient even up to 200°C, the Batwing® is an ideal choice for upgrading fire rated doors to provide additional smoke protection - or, it can equally be fitted to new fire rated door assemblies alongside one of our fireseals. The Lorient Batwing® is also covered by extensive acoustic test evidence. And now that the fins are subtly curved to work with the door leaf, the seal provides a minimal frictional resistance, so the door remains easy to operate, contributing to Document M requirements.

The IS1212 Batwing® will be the first product to adopt the new curved fin technology, with the rest of the Batwing® family following shortly.

Contact Lorient today for a free sample of the all-round winner!



Fact file

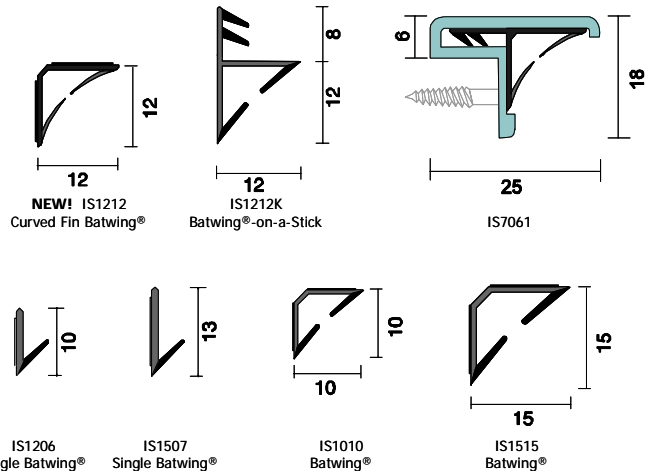


- Originally designed for upgrading fire resistant doors to provide additional smoke protection from ambient up to 200°C, the Lorient Batwing® is equally suitable for use on new build installations.

- The Batwing® is designed to be fitted on to the doorstep at the heads and jambs of single swing doors – both single and double leaf.

- The Lorient Batwing® offers a proven acoustic performance to meet the requirements of Document E, when used with a recommended threshold seal – see page 3 for more details.
- The product is manufactured with a rigid PVC spine, and flexible elastomeric fins, expertly co-extruded for maximum weld strength and product durability.
- All product is supplied with a strong self-adhesive tape for fixing, except the IS1212K which is kerf-fitted.
- Every length is printed on the spine for complete but unobtrusive traceability and accountability for product quality.
- Standard lengths are 1m or 2.1m – but other lengths are available to special order.
- The IS7061 is a unique product, which incorporates the Batwing® seal in an aluminium carrier – bringing all the smoke and acoustic benefits of the Lorient Batwing® to the meeting stiles of double leaf doors.

All the essential facts and figures about the Lorient Batwing®



It's not all black and white...

It's not all black and white with the Lorient Batwing®.... it's brown, cream and silver grey too! And those are just our standard colours. If your next project demands something different, we can make it – like, for example, this yellow and green Batwing® we made for the Sydney Olympics in 2000! So now you can choose the leading smoke and acoustic solution for your project, without compromising on the aesthetics. *Call the Lorient sales team for more information on our bespoke solutions.*



Sticking to the facts

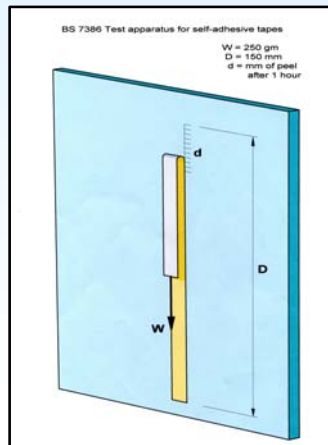
It's a sticky issue – making sure that a face-fixed seal stays fixed!

The self-adhesive tape on the Lorient Batwing® has to be strong enough to make sure the product stays exactly where it should – on the door frame – regardless of the application, or the type of surface it has to adhere to.

At Lorient, our R&D team leave no stone unturned to make sure every part of our Batwing® is up to the job, and that includes the tape. Extensive research has resulted in our use of just two tapes that are capable of delivering the kind of performance that our customers expect.

As part of this research, the adhesion properties are evaluated in accordance with Section A6 of BS 7386. This standard requires a 150mm length of tape to be attached to a piece of glass and, after being left for an hour to achieve maximum grip, a weight is hung onto the end of the tape. After a further hour, a measurement is taken to see how much tape has pulled away from the glass.

This simple test gives a valid comparison of the performance of literally scores of different tapes that we could use.



However, Lorient R&D people felt that applying these test principles to other surfaces (such as hardwood and MDF) would also provide some useful additional information. These tests now form part of our ongoing commitment to product quality and fitness-for-purpose.

Furthermore, we recently had the opportunity of testing the tape used on a competitor's product, for comparison. The results were quite surprising...

So what were the results?

On **glass**, only 17mm of our tape had peeled away after an hour and anything up to 30mm is regarded as acceptable. The competitor product had totally detached (ie 150mm) - but not after an hour - after just 2 minutes 30 seconds.

On **MDF**, where it is particularly difficult to obtain a good bond, only 20mm of the Lorient product had peeled away after an hour. The competitor product again totally detached, after just 3 minutes.

On **hardwood**, our product peeled away by only 17mm, whereas the competitor product had totally detached after a mere 1 minute 27 seconds.

We also tested on **painted steel and PVC**. In both cases, our tape had peeled away by only a few millimetres after an hour - by which time the competitor product had long since detached.

Designed to last

Durability is an important consideration in any product designed to help save lives – that's why the Lorient Batwing® is covered by both CERTIFIRE and BBA accreditations. But 'stickability' is important too! If a product detaches from the door frame, it can be a costly exercise, both in terms of replacement product, and the time and financial costs involved to re-install it. When you fit the Lorient Batwing® you can have complete assurance of both durability and stickability.

Contact the Lorient Technical team today for more information about all the Lorient Batwing® tests and accreditations.



The 2003 revisions to Document E mean many door assemblies must now provide acoustic performance – but the Lorient Batwing® is more than ready for the challenge!

For the first time, the acoustic performance of door assemblies has been addressed, and an actual sound reduction requirement is now detailed. Approved Document E states that doors in “dwelling-houses, flats and rooms for residential purposes” must provide at least 29dB Rw protection. For schools, it’s 30dB Rw, and in some cases 35dB Rw. Many of these doors will also need to meet the requirements of Documents B (fire and smoke safety) and Document M (accessibility).

Problem solved!

But the Lorient Batwing® offers a proven solution to meet all the requirements. As one of our best acoustic seals, we have comprehensive test evidence using the Lorient Batwing® on a range of door types and configurations – including double leaf doors - alongside some of our other perimeter and threshold seals.

All our acoustic testing is always carried out on **full size door assemblies** of standard construction – so you can know that the performance figures on our test reports are truly reflective of the actual performance you can expect from our products.

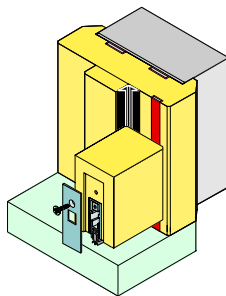
Just some of our recommended solutions are shown below - but for a copy of our comprehensive Acoustic Sealing Systems manual, call the Lorient technical team today.

Acoustic solutions for Fire Rated Doors – 30 Minutes

Single leaf, single swing

Acoustic performance:
Rw = 31dB
STC = 31dB

IS1212 Batwing® +
 LP1004 fireseal +
 IS8010 si automatic
 threshold seal

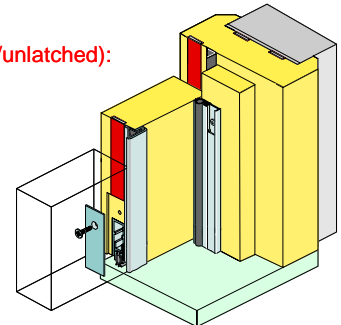


Acoustic solutions for Fire Rated Doors – 60 Minutes

Double leaf, single swing

Acoustic performance (latched/unlatched):
Rw = 33dB / 30dB
STC = 33dB / 30dB

IS1212 Batwing® +
 LP2004 fireseals +
 IS7025 perimeter seal +
 IS7061 meeting stile seal
 IS8010 si automatic
 threshold seal

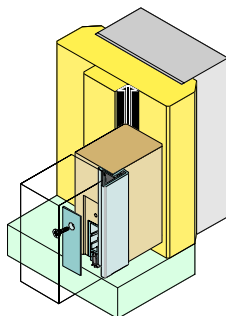


High Performance Sealing Solutions for Specialist Doors

Double leaf, single swing

Acoustic performance:
Rw = 37dB
STC = 37dB

IS1212 Batwing® +
 IS7061 meeting stile seal +
 IS8010 si automatic
 threshold seal

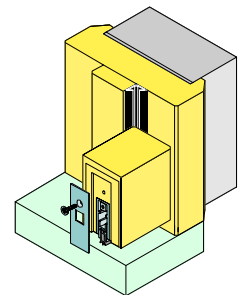


Acoustic solutions for Non-Fire Rated Doors

Single leaf, single swing

Acoustic performance:
Rw = 31dB
STC = 31dB

IS1212 Batwing® +
 IS8010 si automatic
 threshold seal



Our NEW doorset packs provide everything you need to meet the requirements of Doc E.

Each pack contains sufficient product to acoustically seal one door assembly. There are packs specifically for non-fire rated doors (packs E1 and E2) which couple the Lorient Batwing with our IS8010 si automatic threshold seal. Meeting the Doc E requirements couldn't be more straightforward. **Contact the Lorient Sales Team today for more details!**



Our high profile advertising campaign highlights the Batwing®, alongside the IS8010 si and our Finesse combined fire, smoke and acoustic seal.



Another success story
for the Lorient Batwing®.....

Taking Care of Smoke Containment

The UK's largest provider of care homes has chosen the Lorient Batwing® for a major national refurbishment programme.

BUPA Care Homes are currently upgrading almost 260 of their properties throughout the UK, as part of a regular inspection and maintenance programme, to further enhance the passive fire and smoke protection of its portfolio. The Lorient Batwing® will be fitted to existing fire rated doors to provide additional cold smoke containment – an essential life safety measure.



Lorient's products have been supplied for the project by Wolseley UK, a leading supplier of building materials to the professional market. To date, over 7,000 lengths of Lorient Batwing® have been supplied.

WOLSELEY
UK

Wolseley UK Account Manager, Paul Armstrong, who was appointed by BUPA to supply all the building materials for the programme, commented that the Lorient Batwing® was the clear choice for the project by BUPA Care Homes, due to the range offered, and the detailed supporting product and technical information provided. This was also of great help to the main contractors and joinery companies responsible for fitting the products on site.

For more information, please visit www.wolseley.com and www.bupacarehomes.co.uk



Material difference

Co-extruded?
With elastomeric fins?
It's time for some science....

There's a lot of science behind the Lorient Batwing! – but it's all to ensure that our product continually performs to the highest standards.

During its lifetime, a door may be opened tens of thousands of times – and each time, the fins of the Lorient Batwing will need to flex to allow the door to open, flexing back again when the door closes. This constant flexing back and forth can be a challenge for some materials. **Flexible vinyl**, for example, is a form of plastic sometimes used in seal manufacturing – but after a while it has a tendency to "set", meaning the seal will stay formed in the shape of its compressed position. This can compromise the tightness of the seal, and risk its smoke and acoustic sealing properties. A more durable solution is to use an **elastomeric** material, created by actually changing the molecular structure of the plastic during its manufacture. This of course adds cost, but creates a material that is elastic, or rubbery in nature – so the finished product will always spring back to its original shape. That's why Lorient manufacture the Batwing with elastomeric fins – to make sure that its smoke and acoustic sealing properties will be excellent both when it is first fitted, and for years to come.

Joint effort

The elastomeric fins are just one part of the Lorient Batwing. Those fins are attached to a rigid PVC spine, designed for optimum compatibility with both timber and steel door frames. The joint between these two different materials is under constant stress from opening and closing forces, and could present a point of weakness – but not for the Lorient Batwing. Using highly specialized equipment, the spine and fins are extruded at the same time during manufacture (**co-extruded**), forming a continuous weld. Advanced tooling design, unique to Lorient, ensures that the weld is at least as strong as the rest of the product and that the fins will not become detached in service – a common fault in competitor products.

Keeping it under control



Along with many of our products, we submit the Lorient Batwing® to ongoing independent auditing, and have received certification on the product from **both CERTIFIRE and the British Board of Agrément**. Both these schemes exist to prove a product will not only pass a single fire, smoke or acoustic test, but will continue to perform after time in service, is durable, and is consistently manufactured. Both schemes require the company to hold BS EN ISO 9001:2000 quality assurance. *Contact the Lorient Technical team today for a copy of our latest certification.*

Why choose Lorient?

Innovation, test evidence, proven performance, accreditations, product choice.... there are plenty of reasons for choosing the Lorient Batwing®. But in addition to all of these, the Batwing® is **designed and made by Lorient** - the company which has set the standards for excellence in fire, smoke and acoustic containment around the world for over 25 years. The Lorient Batwing® is produced under the strict quality controlled environment of our own manufacturing facilities – so you can be assured that **every length of Lorient Batwing® is made by us, to our exacting standards**. And to prove it, we happy to put our name on it, every time! *Check the spine – read all about it - and accept no substitutes!*

We hope you enjoy reading this special issue of Lorient Express. Letters from readers are welcome and should be sent to the following address:

The Editor, Lorient Polyproducts Ltd, Fairfax Road, Heathfield Industrial Estate, Newton Abbot, Devon TQ12 6UD
Tel: +44 (0) 1626 834252 Fax: +44 (0) 1626 833166 e-mail: admin@lorientuk.com

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