



**TESTING +
TECHNICAL
SERVICES**

TESTING
TECHNICAL
SERVICES





We've been designing and manufacturing high performance sealing systems for over 40 years.

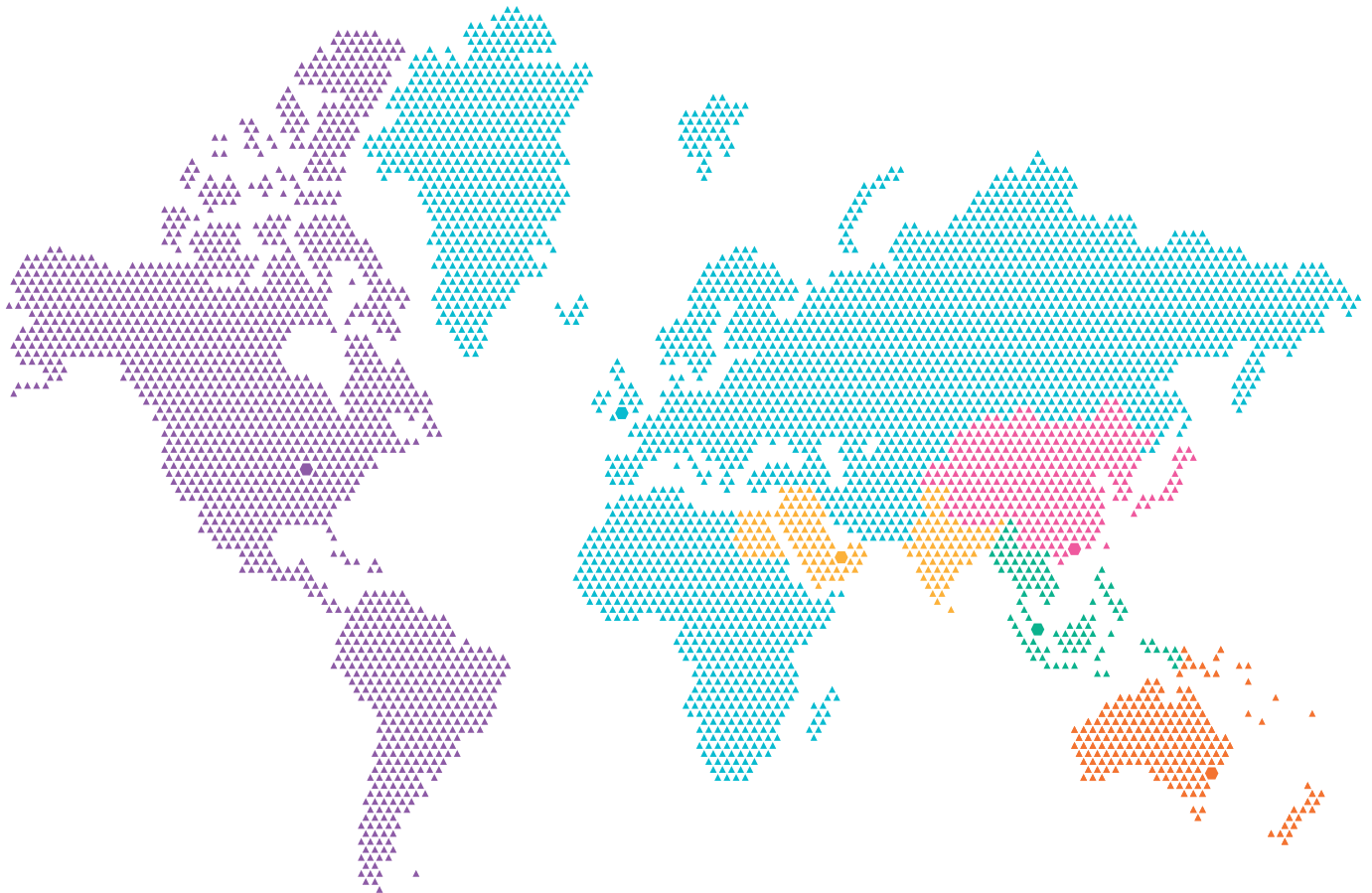
And we're passionate about the products we make. Our dedicated R&D and testing facilities rigorously put our sealing systems through their paces – enabling us to enhance product form and function. We've built a strong reputation for design innovation; and for producing the highest quality sealing systems 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.

Our Testing & Technical Services centre offers a variety of specialist testing services for manufacturers and designers of assemblies including doorsets, windows, glazing systems, door hardware to name but a few.

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

SEALING DOORS WORLDWIDE



The UK is home to our head office, manufacturing operation and dedicated R&D testing facility. Our UK & Europe head office supports 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.



UNITED KINGDOM (HQ)
Lorient Polyproducts Ltd



AUSTRALIA
Lorient PTY Ltd



SINGAPORE
Lorient Southeast Asia
PTE Ltd



HONG KONG
Lorient Pacific Ltd



USA
Lorient North America Ltd



UAE
Lorient Gulf Building
Materials LLC

TESTING + TECHNICAL SERVICES

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WHY LORIENT?

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. Our dedicated Testing & 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 acoustic transmission suite was designed and purpose-built to meet the requirements of BS EN ISO 10140-2 – Laboratory measurement of sound insulation of building elements.

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

- ▶ Fire testing (indicative)
- ▶ Smoke leakage
- ▶ Air leakage
- ▶ Mechanical cycling
- ▶ Environmental chamber analysis
- ▶ Site-based testing
- ▶ Attendance at external fire tests
- ▶ Consultancy services

ACOUSTIC TRANSMISSION SUITE

Wherever noise influences human activity, effective acoustic sealing is essential.

Whether confidential discussions in a private office or doctor's surgery; or reducing noise from adjacent rooms in hotels, preservation of privacy is paramount. Building Regulations provide guidelines for acoustic performance in a number of situations.

ACOUSTIC TESTING

Lorient's acoustic transmission suite features Brüel & Kjær sound measurement technology. It was designed and purpose-built to meet the requirements of BS EN ISO 10140 – Laboratory measurement of sound insulation of building elements. Lorient's Discovery House is a UKAS accredited testing laboratory, No. (UKAS number) (ISO/IEC 17025:2005), ensuring the highest standards for performance and quality.

The acoustic tests involve installing the assembly (door/window etc) within a dividing wall between a sound source room and a receiving room. Sound waves across the full frequency range are produced in the source room. The receiving room measures the sound pressure level. The difference between the sound pressure levels recorded in each room is determined as the Sound Reduction Index (R).

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

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

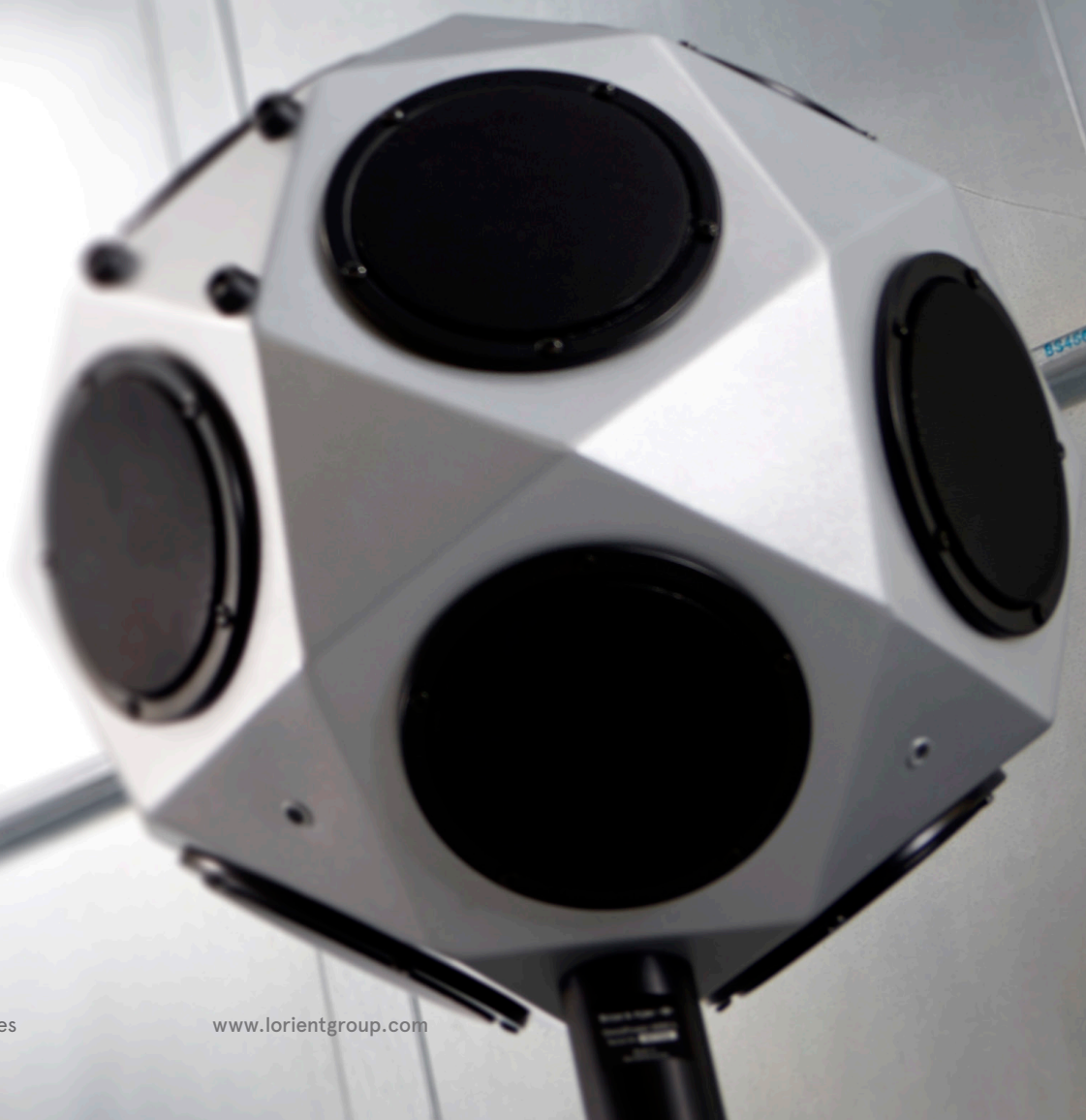
ACOUSTIC TRANSMISSION SUITE

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

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

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

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





LORIENT



INDICATIVE FIRE TESTING

Fire and smoke protection measures are essential, life-saving precautions in a building. What's more, they protect the property from the devastating consequences of the fire itself, and the damaging effects of hot and cold smoke.

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

INDICATIVE FURNACE

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

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

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

FIRE TESTING

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

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

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

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

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FIRE DOOR INSPECTION SERVICES



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

FIRE DOOR INSPECTION SERVICES

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

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

Don't leave it to chance, get in touch today.

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ATG COMMISSIONING + MAINTENANCE

We offer a professional and expert commissioning service for fire + smoke resistant air transfer grilles.

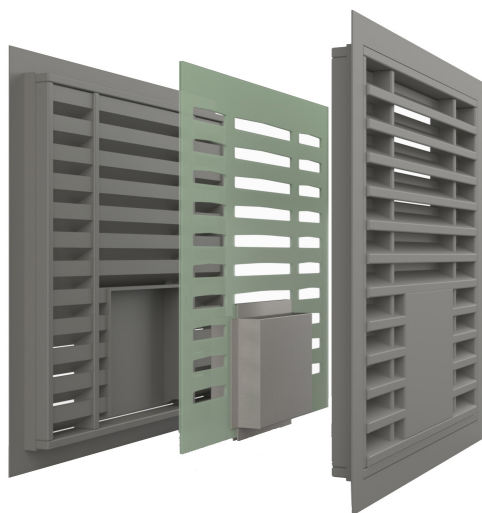
We check and test the installation and components of Lorient fire + smoke resistant air transfer grilles; and issue a fully detailed service report, highlighting status and compliance.

Our comprehensive service covers a number of factors, including:

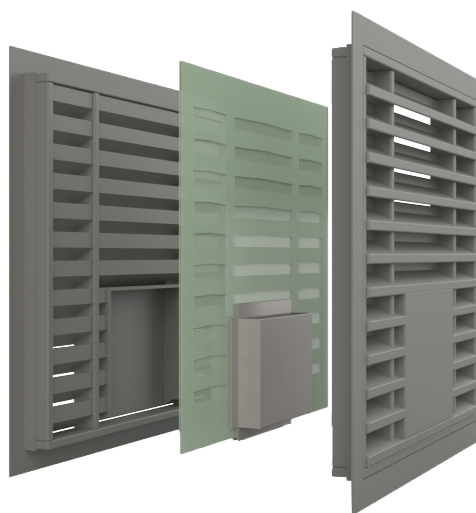
- ▶ Checking the system is installed as per Lorient recommendations and is compliant with test evidence.
- ▶ Checking the full functionality of the system, which can be coupled with witness testing to demonstrate functionality and compliance if required.

- ▶ Providing documented evidence that the system is functioning as per requirements.
- ▶ Providing documented installation detail, which can be used in off-site support and/or included in site handover.
- ▶ Reducing delays caused by improper installation which require technical support.

Please contact our Testing + Technical Services team for pricing and further information on **+44 (0)1626 834252** or email **testing@lorientuk.com**



▲
LVN20S
in open position



▲
LVN20S
in closed position

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OTHER TESTING SERVICES

Our Testing + Technical Services centre offers a variety of specialist testing services for manufacturers and designers of assemblies; including doorsets, windows, glazing systems, door hardware to name but a few.

Whether you're investigating new materials, or developing new or existing products, right through to durability testing and benchmarking performance – our team of experts will support you throughout the process.

OTHER TESTING SERVICES

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

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



Call our Technical Services team for pricing + further information on
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CPDs

We offer three fully-accredited CPD seminars. Impartially presented by knowledgeable speakers, the seminars are structured to be technically informative, and provide 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 + Smoke-Resisting Door Assemblies

The importance of fire and smoke resisting door assemblies is illustrated by the 316 fire related fatalities and 8,750 casualties in fires (2019/20). 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 + 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

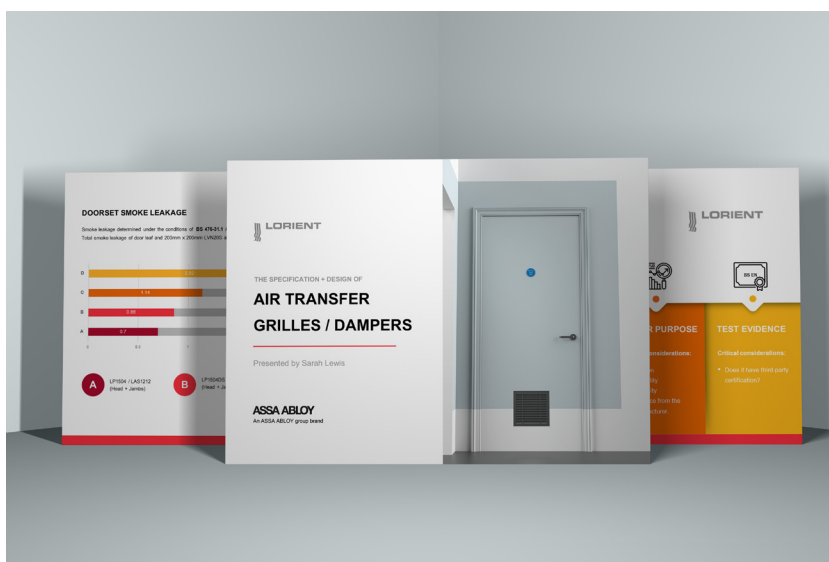
NEW AIR TRANSFER GRILLE CPD

We're delighted to offer a new air transfer grille CPD webinar for 2020 entitled: The Specification + Design of Air Transfer Grilles / Dampers.

This is a fantastic new addition to our growing collection of CPD seminars and explores:

- ▶ the latest test standards and building regulations;
- ▶ the major difference between intumescent air transfer grilles and dampers;
- ▶ the importance of correct specification, installation and maintenance;
- ▶ plus it offers practical solutions for fire and smoke containment over a range of applications.

All of our CPD seminars are available to view virtually, please speak to our Marketing Department for further information on **01626 834252** or email mktg@lorientuk.com



COMPREHENSIVE SUPPORT

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

Technical Services

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

Alternatively, we can arrange a site visit to get a clearer idea of your needs and how we can help you. We also provide copies of test reports and samples where needed; and can give guidance on how best to meet Building Regulations and Standards.

Fire Door Inspection Services

Our Certificated Fire Door Inspectors are fully qualified under the Fire Door Inspection Scheme (FDIS); and have been assessed by Exova Warringtonfire, an independent third party. They are certificated to carry out the inspection of your building's fire doors and prepare a detailed survey and report on the condition and function of the fire doors on your premises. This is invaluable if you're a Responsible Person in a building. Contact us for more details.



Qualifying Fire Door Professionals

Web Support

Our website features a comprehensive range of supporting documents covering the entire range of products, including installation guides and CAD drawings. All of our brochures and products sheets are also available for download, together with copies of certification and specification texts.

Online Acoustic Search

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

www.lorientuk.com/acousticsearch

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



Customisation

If you have a particular requirement which isn't covered by the applications in this brochure, we may be able to supply an existing non-standard item, or even develop a customised solution for you. Utilising in-house expertise, bespoke products are created to your requirements; from a functional or aesthetic perspective, or both.

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



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www.lorientuk.com

ADDITIONAL INFORMATION

TRADE ASSOCIATIONS

Lorient is a member and active contributor to the following:



ACCREDITATIONS

BBA

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



CERTIFIRE

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

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. 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.



IFC

IFC Certification Ltd is a UKAS approved and internationally recognised provider of third party Certification services – designed to give confidence to specifiers, users, occupiers, owners and enforcement bodies that products have been thoroughly and independently evaluated and will continue to be manufactured to the same specification as originally tested.



TECHNICAL REFERENCES

Lorient is quality assured under the disciplines of BS EN ISO 9001:2015.

Accreditation to this standard is an assurance that we conduct our business to the complete satisfaction of our customers with regard to design solutions, manufacturing consistency and management procedures.

As a result, this internationally recognised standard for quality management generates customer confidence. Regular audits of our company procedures are undertaken by qualified BSI staff to ensure ongoing compliance with all aspects of the standard.



BS EN ISO 9001:2015 Certificate No. Q6104





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