

## Third Party Accreditation

Three independent accreditation schemes exist with particular relevance to fire seals and smoke seals. Their purpose is to set benchmark quality and performance requirements, which go beyond the simple passing of a single fire or smoke test. In addition, these schemes monitor ongoing production. Audits are carried out, to ensure that the quality and performance specification of the originally tested items are properly maintained.

### CERTIFIRE Certificate Nos. CF330/CF341/CF5179



CERTIFIRE is an accredited independent product conformity scheme operated by Exova Warrington Certification Limited. Lorient has held CERTIFIRE certification for many years, but has now achieved the more rigorous requirements of the revised schedule for fire and smoke seals, TS35.

### BRITISH BOARD OF AGRÉMENT Certificate No. 92/2841



British Board of Agrément approvals provide independent assurance for the designer, specifier and end-user as to the "fitness for purpose" of building products. Durability tests, and fire and smoke tests have to be carried out on a range of door configurations, single leaf, double leaf, single acting, double acting, latched and unlatched.

### IFC



IFC Certification Ltd is a UKAS approved and internationally recognised provider of third party certification services. Lorient was awarded this certification having met the requirements of the SD13 schedule for Penetration and Linear Gap seals on a number of fireseal and combined smoke and fire seal products.

*More information on these schemes can be found in the Lorient brochure, "Acoustic, Smoke and Fire Seals for Door Assemblies".*

## Trade Associations



*Information on other trade association memberships can be found in the Lorient brochure, "Acoustic, Smoke and Fire Seals for Door Assemblies".*

## Handling and Storage

No special precautions are required when handling Lorient acoustic, smoke and 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. Lorient 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.

**Please note: Recommendations as to methods of use of materials and construction details are based on the experience and knowledge of Lorient and are given in good faith as a general guide and service to designers, contractors and manufacturers.**

## Regulatory Requirements

The design and construction of fire door assemblies varies greatly and it is vital that the fire test report for the assembly (available from the manufacturer) is consulted to confirm that the correct size and type of seal has been purchased, before commencing with the fitting. Fitting in accordance with these recommendations, Lorient acoustic, smoke and fire seals will enable the performance requirements of **BS 476: Pt.22: 1987** to be met.

In the UK, the vast majority of fire door assemblies are also required to be smoke resistant to the performance levels set out in either **BS 9999** or **Approved Document B** to the Building Regulations (England and Wales). A separate smoke test report to **BS 476: Pt.31.1:1983** is required to establish this compliance. Smoke sealing of the threshold is also recommended. A seal must be used where a gap of 3mm or more is present, as laid down in **BS 9999**.

**Approved Document E** to the Building Regulations (England and Wales) also requires doors in certain situations to provide acoustic performance. Lorient holds extensive acoustic test evidence on its acoustic, smoke and fire seals, and further information is available from the Lorient Technical Department.

**Approved Document M** to the building to the Building Regulations (England and Wales) and Technical Booklet V to the Building Regulations (Northern Ireland) relate to accessibility for all persons entering and using buildings. Visual contrast on the leading edge of doors is included, as are opening and closing forces for ease of door operation, threshold height and door width requirements.



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BS EN 14001:2004  
Certificate No. DMS 541906



BS EN ISO 9001:2008  
Certificate No. Q0104



## Fitting Instructions

### Acoustic, Smoke and Fire Seals

- 1) Before fitting the door frame to the opening, rout all grooves to the back of the frame and head. Repeat the same operation for the inside of frame and doors where applicable.  
**Note:** All grooves should be of suitable width and depth such that the seals do not stand proud of their surroundings.
- 2) Make sure grooves are free from dust and grease. Lorient does not recommend oil or solvent based paint/primers.
- 3) Measure and cut all seals to length using a hacksaw. Remove self-adhesive backing and butt joint fit all seals to inside and outside of door frame or door, and meeting stiles of pairs of doors where applicable. Pressure must be applied to activate adhesive backing properties.  
**Note:** Pinning of seals is not recommended.
- 4) Measure and recess for hinges and intumescent liner in frame and doors.
- 5) Fit frame to opening making sure no damage occurs to the seals.
- 6) Measure and cut out rebate in door threshold for automatic threshold seal, and fit (fitting instructions provided with LAS8001 si / LAS8005 si).  
**Note:** If using an LAS8001 si on a 60 minute fire rated door (FD60), an intumescent cladding kit must be used. Refer to Lorient's Technical Department for more information.  
**Note:** On double swing doors, threshold seal LAS5010 and threshold plate LAS4010 can be used.
- 7) Fit hinges and intumescent pads to frame and door and hang doors.

## Fitting Instructions

### DS and Finesse™ Acoustic, Smoke and Fire Seal:

- The DS/Finesse™ seal also requires a 3mm gap size, with +1mm tolerance. The DS/Finesse™ can be fitted to either the door leaf or the door frame, but we would recommend fitting it to the frame.
- **It is essential that one fin on the product remains continuous at ironmongery points to ensure effective smoke and acoustic sealing performance.**
- Hinge blades may vary in depth / width and therefore the DS seal may be positioned offset at a maximum of 23mm from the opening side of the door or frame to provide a continuous smoke and acoustic seal.

### TS and AS Smoke Seals:

- A gap of 3mm for the standard 4mm fin is needed and a tolerance of +1mm is permissible. Because of the elasticity of the AS and TS fin material it is possible to squeeze them into gaps of less than 3mm but damage could result in service due to extreme abrasion, particularly at the head of the door and on the jambs. Excessive opening and closing forces will also result.
- Location in the door frame is generally preferred since no difficulty will then be experienced in hanging and fitting of the door leaf.

### For all smoke seal profiles:

- We recommend that, in line with good joinery practice, the edges of door leaves are given a 1° leading edge and chamfered on both edges.
- Overpainting and varnishing is not recommended.

*Application should be at a temperature NO less than 10°C. Once installed Lorient fire seals may, if required, be painted over. **Do not paint the flexible elements of combined acoustic, smoke and fire seals. Freshly painted doorsets fitted with combined fire and smoke seals should be left open until the paint is fully dry and cured. Some paint or lacquers will affect adhesion.***

**Note:** Please ensure that seals are correctly fitted in order to provide effective sealing characteristics and long service life.

The following diagrams cover typical applications of Lorient intumescent acoustic, smoke and fire seal profiles to the most common types of fire resistant door assemblies. It should be noted that double leaf and 180° swing configurations present a very complex subject and only broad generalisations are given in this leaflet. In case of difficulty, more specific information will gladly be supplied on request – please contact the Lorient Technical Department.

## Typical installations – FD30S



### Single leaf, single swing.

LP1504DS at head and jambs

LAS8001 si at threshold

*Acoustic performance:*  
31dB Rw



### Double leaf, single swing.

LP1504DS at head and jambs

LP1504DS at meeting stile  
LP1504 at meeting stile

LAS8001 si at threshold

*Acoustic performance:*  
31dB Rw



### Single leaf, double swing.

LP1004 plus LP1004DS at head and jambs

LAS5010 plus LAS4001 at threshold



### Double leaf, double swing.

LP1004 plus LP1004DS

LP1004 (x3) plus LP1004DS at meeting stile

LAS5010 plus LAS4001 at threshold

## Typical installations – FD60S



### Single leaf, single swing.

LP2004DS at head and jambs

LAS8005 si at threshold

*Acoustic performance:*  
31dB Rw



### Double leaf, single swing.

LP1004 plus LP1004DS at head and jambs

LP1004 (x3) plus LP1004DS at meeting stile

LAS8001 si at threshold

*Acoustic performance:*  
30dB Rw



### Single leaf, double swing.

LP2004DS at head and jambs

LAS5010 plus LAS4001 at threshold



### Double leaf, double swing.

LP2504DS head and jambs

LP2504DS meeting stiles

LAS5010 plus LAS4001 at threshold