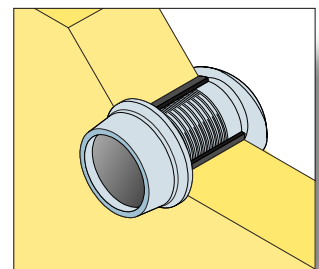
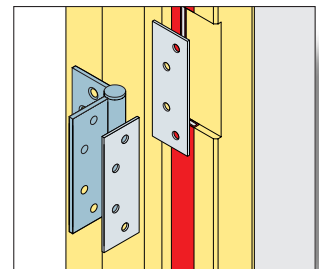
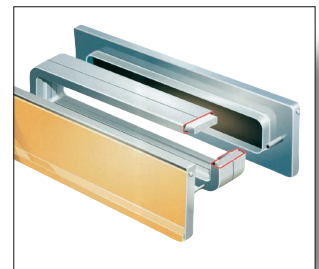
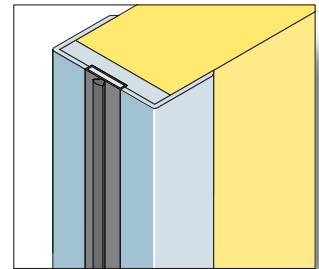




# Specialized Fire Resistant Door Furniture

- A comprehensive range of door furniture which provides protection against fire and smoke at all temperatures
- Fully tested in accordance with the relevant standards
- Co-ordinated with other Lorient products and ironmongery
- Quick and easy to install
- Expert technical advice provided free of charge based on hundreds of fire and smoke tests and unrivalled experience



## Lorient Polyproducts

Fire and smoke protection measures are provided as a life saving precaution. This places a great responsibility on designers and manufacturers - they must have complete confidence in the measures they recommend.

Lorient Polyproducts is an acknowledged leader in the design and manufacture of products which provide fire and smoke protection. The company has many years of accumulated knowledge and experience which are shared freely with its customers - so they too have confidence in the products and information supplied.

Within Lorient there is a dedicated technical centre. This facility is used to develop all Lorient products and is also made available to customers for their own product development.

Lorient also has detailed knowledge of the regulatory requirements concerning fire safety. Complying fully with these requirements is a major step towards ensuring building safety and reducing the risk of litigation in the event of fire.

Lorient places great emphasis on the durability of its products and the ease with which they can be installed. All Lorient products have a service life which runs into decades - they are easy to fit requiring no special tools or skills.

To meet the demands of the interior designer Lorient has developed an extensive range of colours and finishes which can be used to complement many materials.

For the future, Lorient welcomes new challenges and will continue to generate success for its customers through sustained investment in carefully researched products.

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## **Fire and Smoke - Life Threatening Forces**

When fire breaks out in a building the threat is twofold.

Firstly, there is the fire itself and the hot smoke generated in the immediate vicinity.

Secondly, there is cold smoke which, if unchecked, spreads rapidly, preceding the fire and hot smoke, threatening people and property some distance from the fire.

Every year in the UK alone, some 600 people are killed and 16,000 injured in fires, many of the casualties being attributable to breathing the toxic products of combustion from a remote fire. Fire and smoke also cause extensive damage to building fabric and contents. It has been estimated that the total value of fire related losses is some £2.2 billion per annum. The majority of these deaths, injuries and losses occur in buildings where fire and smoke protection measures have been inadequate.

### ■ **Design Needs**

The Building Regulations require large buildings to be sub-divided into smaller volumes or areas bounded by building elements which resist the spread of fire and smoke. Building a fire resistant wall or floor is a relatively simple task. A more complex problem is ensuring necessary penetrations through fire resistant constructions do not provide a conduit for fire and smoke, thereby endangering life and property.

Lorient supplies products which enable fire and smoke resistant doors, windows, glazed screens, air transfer grilles and air ducts to be formed. What also has to be ensured is that:

- items of door furniture fitted for reasons of safety, security and convenience - for example, locks, letterplates, closers and spy holes - do not reduce the fire and smoke resisting properties of a door
- measures taken to protect door leaves from impact damage do not reduce the fire and smoke resisting properties of a door

### ■ **The Solution**

To overcome these problems Lorient can supply:

- specially designed items of door furniture which afford security and protection against fire and smoke
- intumescent protection kits for fitting around hinges, door closers and other items of ironmongery
- door leaf edge protectors with built-in fire and smoke seals

### ■ **Regulatory Requirements**

The requirements for fire and smoke containment with respect to 'means of escape' are presented in Approved Document B to the Building Regulations (England and Wales), Part E of the Scottish Technical Standards and Part E to the Building Regulations (Northern Ireland).

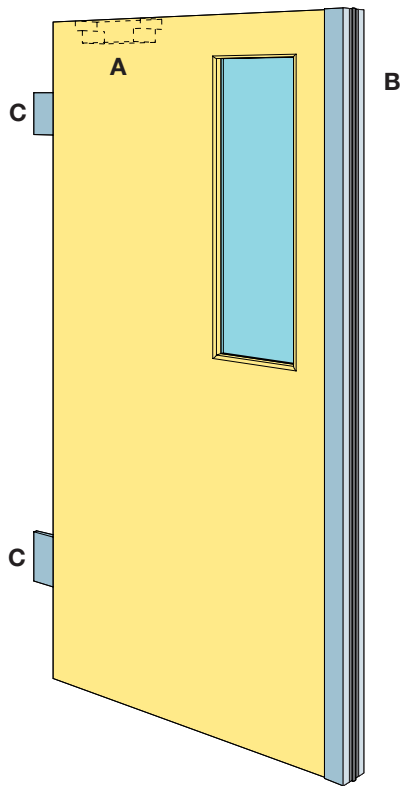
A study of these requirements shows that practically all internal fire resistant door assemblies are also required to prevent the passage of cold smoke. Performance in relation to cold smoke needs to be considered separately from performance in relation to fire and hot smoke and a separate test report is called for.

### ■ **Relevant Standards**

There are several British Standards which relate to the products and solutions featured in this brochure. They include:-

- BS 476 Pt. 22: 1987: Methods for determination of the fire resistance of non-loadbearing elements of construction
- BS 476 Pt. 31.1: 1983: Methods for measuring smoke penetration through doorset and shutter assemblies
- BS 5588: Fire precautions in the design and construction of buildings. (An Approved Document for compliance with Building Regulations)

## Product Selector



### ■ Internal Door Leaf

#### A Door Closer Protection Kits

30 and 60 minutes fire protection (see page 10)

#### B Edge Protector

30 and 60 minutes fire and smoke protection (see page 5)

#### C Hinge Protection Kits

30 and 60 minutes fire protection (see page 9)

### ■ Use of Symbols



indicates that the product featured provides protection against cold smoke.



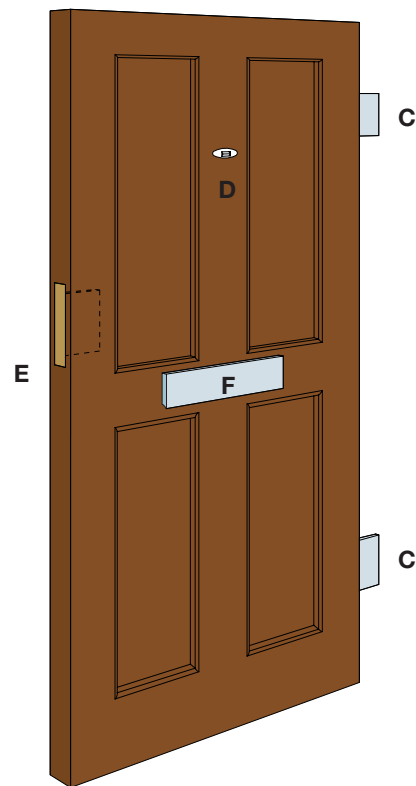
indicates that the product featured provides protection against fire and hot smoke.



indicates that the product featured provides acoustic benefits.



indicates in minutes the fire protection provided by the product.



### ■ External Door Leaf

#### C Hinge Protection Kits

30 and 60 minutes fire protection (see page 9)

#### D Viewer

30 minutes fire and smoke protection (see page 8)

#### E Lock and Latch Protection Jackets

30 and 60 minutes fire and smoke protection (see page 9)

#### F Letterplates

30 minutes fire and smoke protection (see page 6)  
up to 60 minutes fire and smoke protection plus security features (see page 7)

### ■ Lorient Fire and Smoke Resistant Door Furniture

Throughout the product range guidance is given as to the type of protection the door furniture provides along with the duration of protection it will achieve.

## Edge Protector



30 60

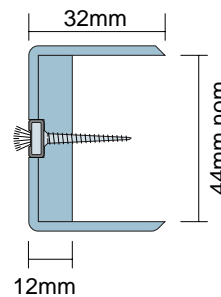
Some doors receive particularly harsh treatment from building occupants. Lorient door edge protectors:

- protect door edges against impact damage
- provide fire resistance of 30 minutes or 60 minutes when fitted to full size door assemblies and tested in accordance with BS 476 Pt. 22
- provide protection against cold smoke in line with the requirements of BS 5588 and Approved Document B to the Building Regulations

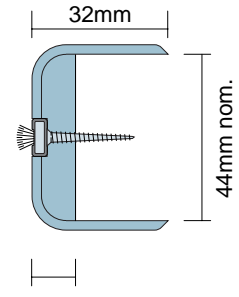
Lorient door edge protectors were specifically developed to upgrade damaged doors. They are manufactured from heavy duty, impact resistant vinyl material, with a textured finish to minimize scuff marks. They also:

- are easy to fit to new or existing doors
- are designed to suit nom. 44mm and 54mm door thicknesses
- incorporate a margin for inevitable variations in door thickness
- can be supplied in a 50mm leg length to increase the area of the door protected
- are available in a wide range of colours and two finishes. The standard colour for the fire and smoke seal insert is black or white, however it can be colour co-ordinated with the edge protector. The two finishes available are; Hessian (textured) and Falmouth (smoother with feint stippling)
- are low maintenance, hygienic and have a wipe-clean surface

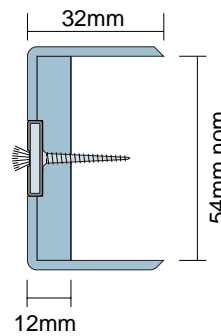
A range of matching items including push plates and kick plates is available.



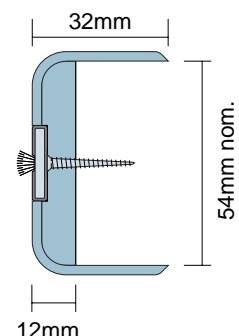
LRJ 4432S



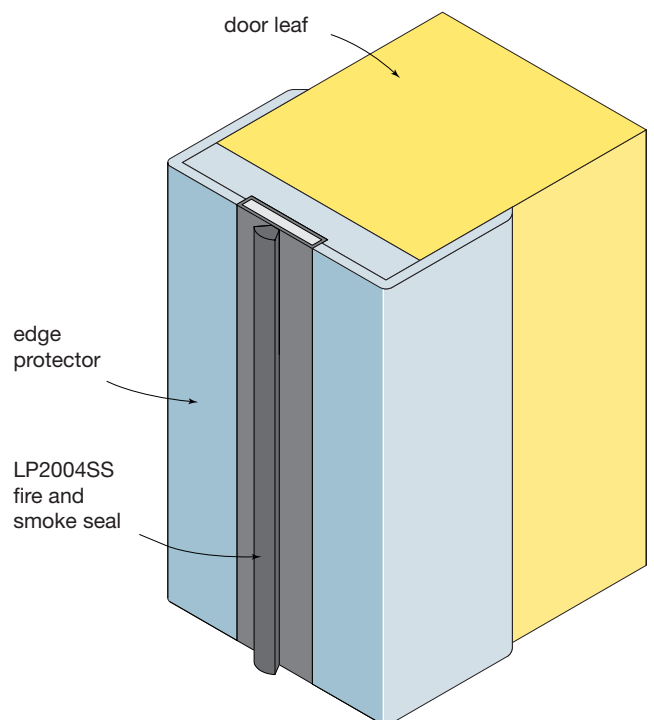
LRJ 4432R



LRJ 5432S



LRJ 5432R



Patented

## Letterplates

Doors from common passageways to flats, apartments and offices are frequently required to be fire and smoke resistant. They may also need to be fitted with a letterplate. Fitting a “normal” letterplate assembly would completely negate the fire and smoke resisting properties of a door. Lorient can supply two models of fire and smoke resistant letterplate. The integrated fire/security letterplate can be fitted with a range of optional security devices.

Lorient fire and smoke resistant letterplates:

- provide protection against fire and smoke at all temperatures when fitted to previously tested door sets
- provide protection against cold smoke in line with the requirements of BS 5588 and Approved Document B to the Building Regulations

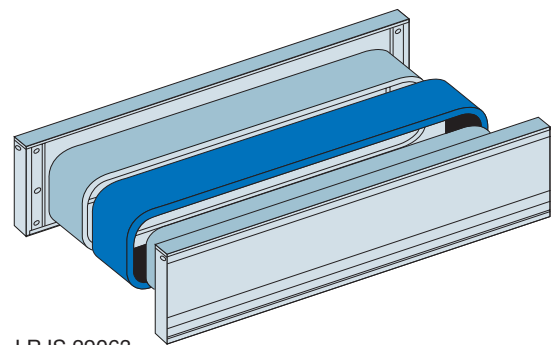
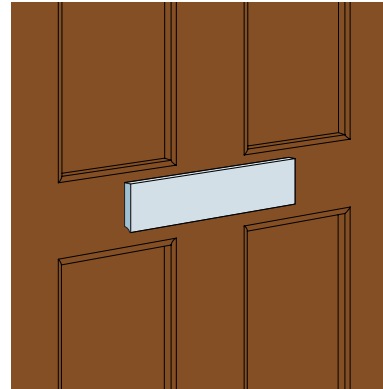
### ■ Firemaster Fire and Smoke Resistant Letterplate



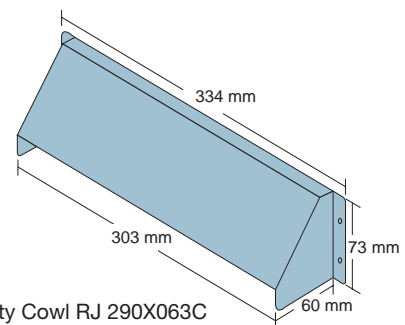
This new letterplate assembly has been tested in accordance with the principles of BS 476 Pt 20/22 and has been shown to provide in excess of 30 minutes fire resistance.

Like other letterplate designs in the Lorient range, the intumescent liner is telescopic, making it suitable for different thicknesses of door.

- robust aluminium construction
- tested with positive pressure and can be located in any area of the door
- CERTIFIRE approved, certificate number CF219
- nylon brush seals fitted to prevent vision through the letterplate and provide draught proofing
- security cowl is available to prevent vision through the letterplate when open, and to inhibit manipulation of locks and bolts
- **Acoustic Performance**  
Under test conditions it has been demonstrated that the Firemaster letterplate does not cause any significant reduction to the overall acoustic performance of the solid core fire door to which it is fitted. For more detailed information please contact the Lorient Technical Department.



LRJS 29063



Security Cowl RJ 290X063C

**max/min door thickness (t):** 40mm - 70mm

**external height (h):** 66mm

**external width (w):** 296mm

**door aperture size:** 285mm x 55mm

**finishes:** silver or gold anodized

*Letterplate manufactured by Paddock Fabrications Ltd*

■ **High Performance Fire, Smoke & Security Letterplate**



The Lorient high performance letterplate assembly has been tested in accordance with BS 476 Pt. 22 and has been shown to provide in excess of 60 minutes protection against fire. The letterplate assembly is internally sealed so that the unit will not compromise the smoke integrity of the door when tested in accordance with BS 476 Pt. 31.1. It can also be supplied with a range of optional security devices. Several models of this letterplate are available to suit different thicknesses of door.

**max/min door thickness (t):**

42mm - 47mm: LRJ 8042F or LRJ 8042S

47mm - 52mm: LRJ 8047F or LRJ 8047S

52mm - 57mm: LRJ 8052F or LRJ 8052S

*Note: Suffix F indicates fire protection*

*Suffix S indicates fire and smoke protection.*

**external height (h):** 80mm

**external width (w):** 312mm

**door aperture size:** 270mm x 60mm

**letter flaps:** for 30 mins, aluminium only  
for 60 mins, brushed stainless or brass

■ **Optional Security Features**

These items may be fitted at the same time as the letterplate or at a later date.

■ **Security Cowl**

- prevents people seeing through the open letterplate
- stops people trying to manipulate locks and bolts through the letterplate
- inhibits attempts to attack occupants through the letterplate aperture

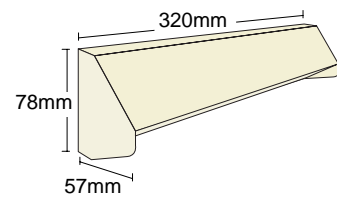
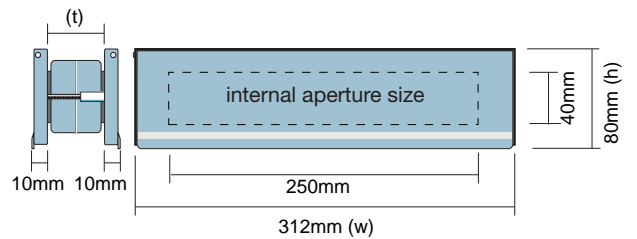
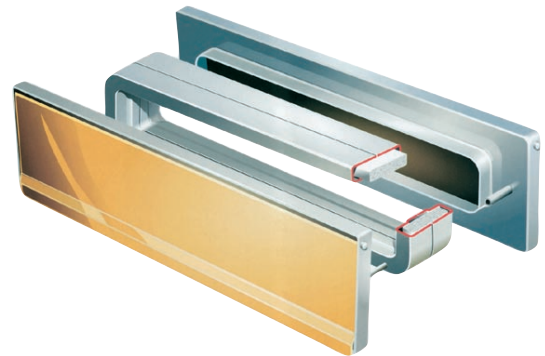
■ **Security Latch**

- locks the inner flap

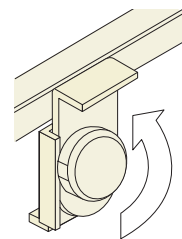
■ **Post-box**

This item is constructed from steel with welded seams and:

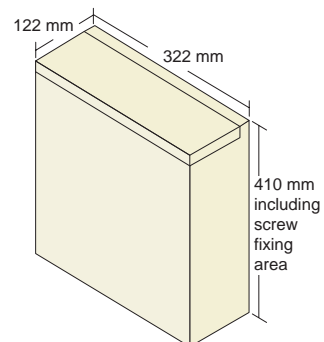
- collects the post and keeps it secure
- prevents damage from flammable or noxious items posted through the letterplate



Security Cowl LP10



Internal Security Latch LP11



Lockable Post-box LP12

## Wide Angle Viewer

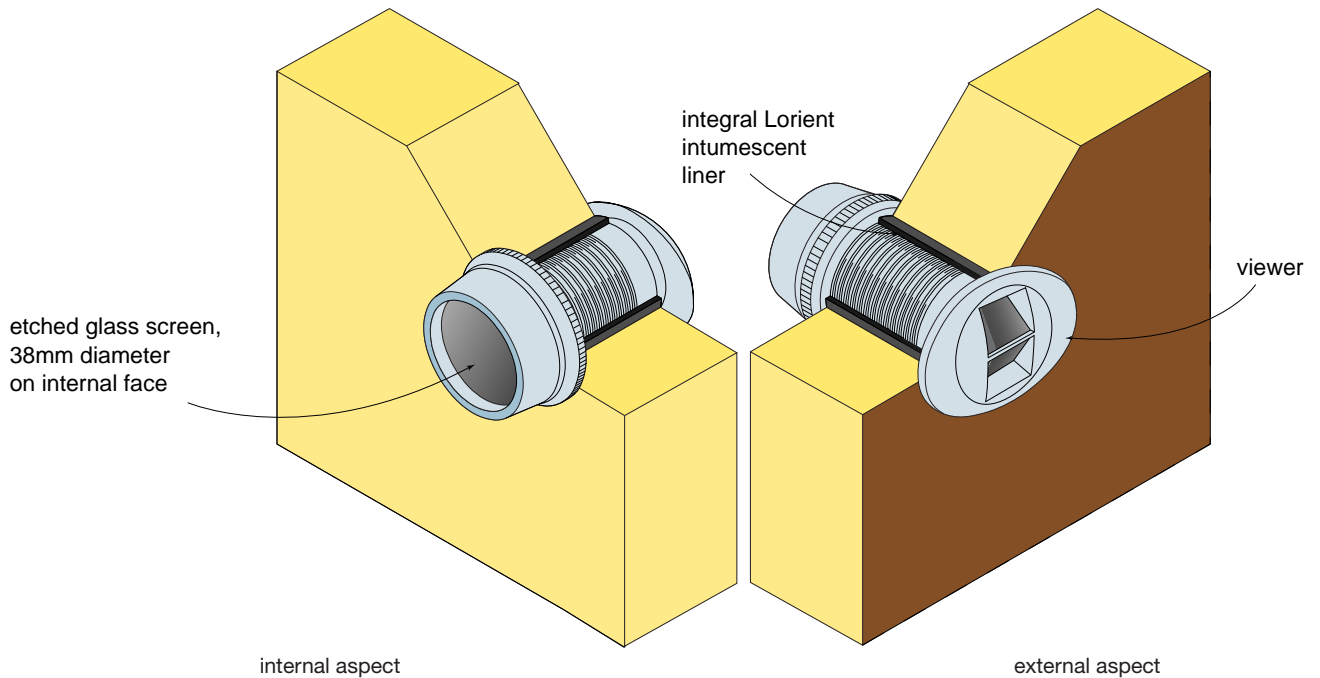
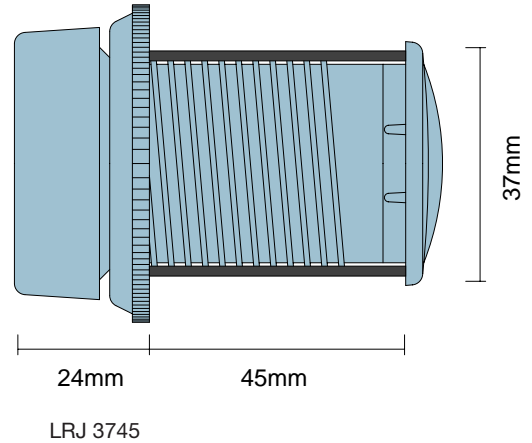


30

A one-way viewer which allows occupants to see and identify callers. The viewer is supplied with an integral intumescent liner. Tests have shown the viewer can be fitted to 30 minute fire resistant doors without compromising fire safety.

The Lorient viewer:

- allows callers to be seen and identified without opening the door
- projects an image of the caller onto an etched glass screen which can be easily viewed from a convenient distance. It is not necessary to have the eye so close to the viewer that there is a risk of penetration from sharp objects
- allows occupants to see out but does not allow callers to see in
- provides fire resistance of 30 minutes when fitted to full size door assemblies and tested in accordance with BS 476 Pt. 22
- is available in black, gold, silver, bronze or white



## Intumescent Protection Kits



30 60

All door furniture must be fitted in a way which ensures the fire resisting properties of a door are not compromised. In many instances the recommendation is that ironmongery be bedded in intumescent mastic or paste.

A quicker, easier, cleaner and more accurate solution is to use shaped pads of intumescent material. Lorient offers a range of kits designed for use with:

- hinges
- locks and latches
- concealed hydraulic door closers

### ■ Hinge Protection Kits

These kits provide fire resistance of 30 minutes or 60 minutes when fitted to full size door assemblies and tested in accordance with BS 476 Pt. 22.

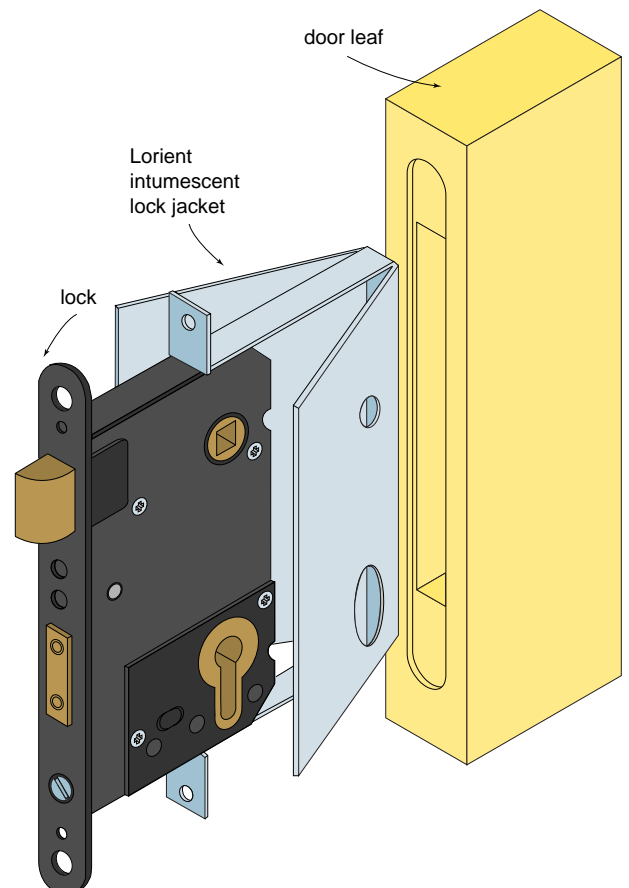
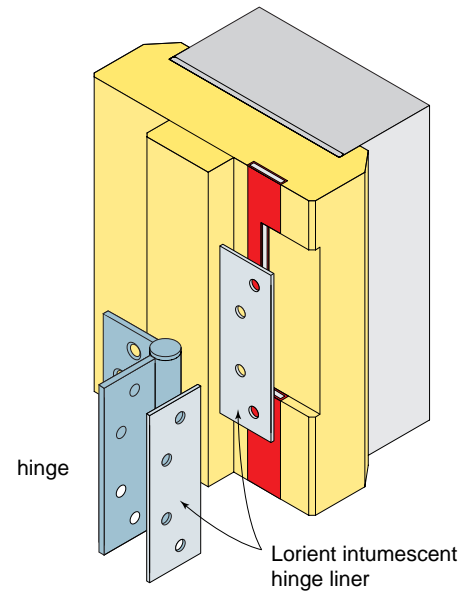
Lorient can supply intumescent protection kits for commonly specified hinges eg:

- Royde & Tucker
- Cooke Bros

### ■ Lock and Latch Protection Jackets

These jackets provide fire resistance of 30 minutes or 60 minutes when fitted to full size door assemblies and tested in accordance with BS 476 Pt. 22.

Lorient can supply intumescent jackets to fit all regular UK lock case sizes of 63mm, 75mm and 100mm deep with a common height of 108mm and 56mm centres, generally manufactured to the dimensions given in BS 5872: 1980 figure 4. Jackets to suit other sizes can be provided: please refer to our Technical Department.



■ **Concealed Door Closer Protection Kits**



**30** **60**

Hydraulic closers concealed in the door leaf are increasingly popular - but they must not be fitted to fire resistant doors without appropriate protective measures being taken. This is because:

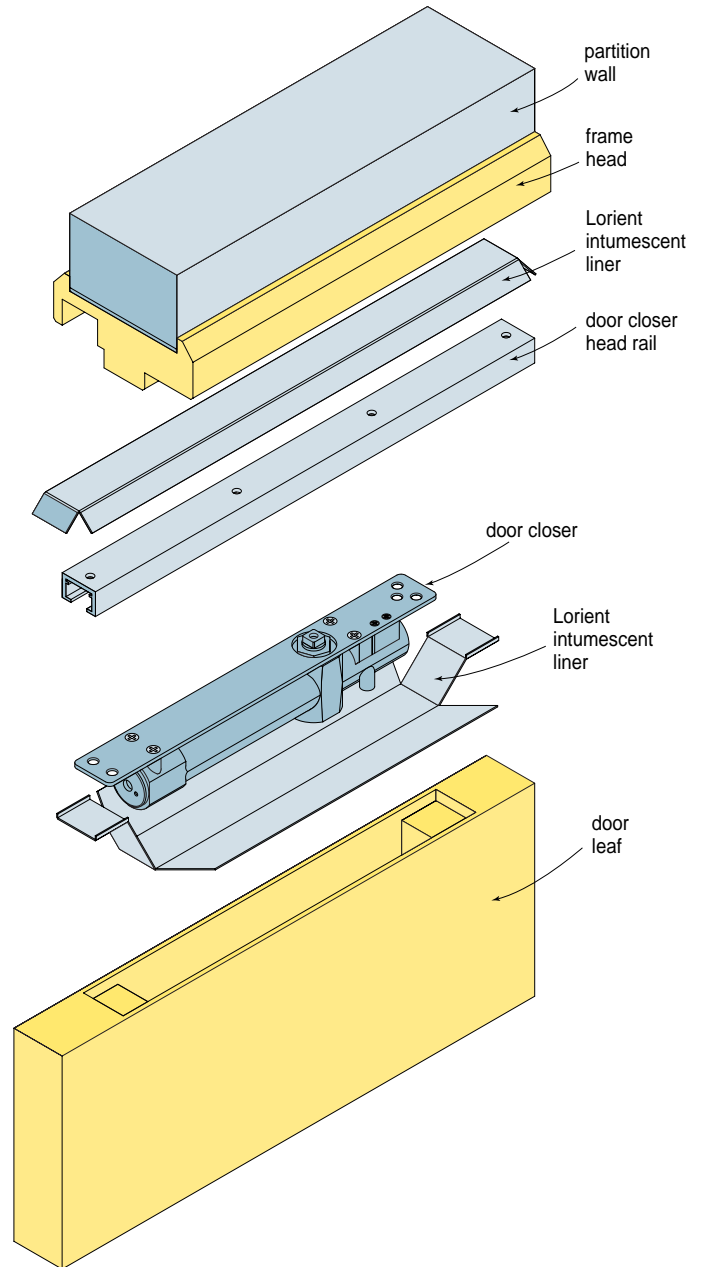
- they require a large portion of the door to be cut away which immediately reduces fire resistance
- many models contain flammable hydraulic oil
- the aluminium housings are likely to melt in intense heat leading to a breach
- they are made from materials which are very good heat conductors and take up much of the available door leaf thickness

Lorient intumescent protection kits overcome these problems. They consist of thin, high performance intumescent sheet, pre-cut and scored so they can be easily fitted around door closers. To further facilitate installation, the kits are self-adhesive.

Protection kits are available for the most commonly specified closers. Lorient can supply a range of closers complete with the protection kit.

When tested in accordance with BS 476 Pt. 20 it was shown that Lorient closer protection kits can provide up to 60 minutes protection, even on 44mm thickness door leaves.

The low pressure intumescent action ensures the door leaf is not split. Insulation against heat transfer is provided as soon as the intumescent material is activated.



## ■ Technical References

### BS EN ISO 9001:2000

Certificate No. Q6104

Lorient is quality assured under the disciplines of BS EN ISO 9001:2000.



Accreditation to this standard is effectively a guarantee of Lorient's ability to conduct its business to the complete satisfaction of the customer in terms of design solutions, manufacturing consistency and management procedures.

The status of this internationally recognised accreditation generates customer confidence and eliminates the risk of poor performance. Regular audits of the company procedures are carried out by qualified BSI staff to ensure continuing compliance with all aspects of the Standard.

## ■ Technical Services and Support

Lorient is always happy to provide specialist advice on fire and smoke protection, for both refurbishment and new build projects. We offer:-

- a telephone help line
- site visits
- copies of relevant test reports
- samples
- technical and performance specifications
- help and advice on meeting Building Regulations and Standards
- CPD accredited seminars, please ask for details



## ■ Web

Lorient has an exciting web site which features up to date information. Access the site on

**[www.lorientgroup.com](http://www.lorientgroup.com)**

e-mail us on [mktg@lorientuk.com](mailto:mktg@lorientuk.com)

## ■ CAD

Lorient can supply all its product drawings in either AutoCAD® format or DXF format. These are available to download from the Lorient website.

*Please Note: Recommendations as to methods, 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 a service to designers, contractors and manufacturers.*

## ■ New and Custom Made Products

Adopting a policy of ongoing innovation, Lorient is continually adding to its range of products. If you do not find your exact requirement in this brochure please call us on **+44 (0)1626 834252**.

We may well be able to supply an existing non-standard item or develop a customised solution for you.



### Architectural Seals

For information or a brochure on Lorient's range of Integrity™ Architectural Seals, please call the Technical Department today.

## ■ Trade Associations

Lorient is a member of the Glass and Glazing Federation Fire Resistant Glazing Group (GGF) and is a founder member of the Intumescent Fire Seals Association (IFSA).

Lorient is also an associate member of the Architectural and Specialist Door Manufacturers Association (ASDMA), the Guild of Architectural Ironmongers (GAI), the British Woodworking Federation (BWF), and is also an Approved Supplier to the BWF CERTIFIRE Fire Door and Doorset scheme.

## ■ Prices and Conditions of Sale

A price list for all Lorient products is available on request. The Lorient policy of continuing development means that the products supplied may differ slightly from those described in this brochure. All products are sold subject to Lorient's terms and conditions of sale which are available on request.

## ■ Ordering, Supply and Delivery

All Lorient products are generally available from stock: they may be ordered by post, telephone or fax.

### Orders should be sent to:-

**Lorient Polyproducts Ltd.**  
**Fairfax Road,**  
**Heathfield Industrial Estate,**  
**Newton Abbot, Devon, TQ12 6UD,**  
**United Kingdom.**

**Telephone: +44 (0)1626 834252**

**Fax: +44 (0)1626 833166**

**Other brochures in this series include:**

**Fire and Smoke Resistant Damper/Air Transfer Grilles**

Describes the Lorient range of intumescent grilles for doors, walls and ducts, together with co-ordinating, fully automatic smoke control damper assemblies.

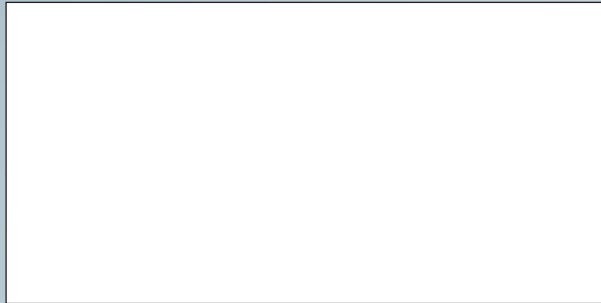
**Fire Resistant Glazing Systems**

Describes the Lorient range of fire resistant glazing systems, in doors and screens, in conjunction with various types of glass, from 30 minutes to 120 minutes performance.

**Fire and Smoke Seals for Door Assemblies**

Describes the mainstream range of Lorient fire seals and smoke seals together with interpretation of the regulatory requirements.

Lorient brochures and products are available direct from Lorient or from your local stockist below



**LORIENT**

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Lorient Pacific Ltd, Unit 509, 5th Floor, Block A, Ming Pao Ind Ctr, 18 Ka Yip Street, Chai Wan, Hong Kong  
Tel: +852 2505 0328 • Fax: +852 2505 0332 • e-mail: sales@lorienthk.com

Lorient Australia Pty Ltd, P.O. Box 676, 8 Powells Road, Brookvale, NSW 2100, Australia  
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