



**Global Assessment of:**

**Pacific Rim Wood Ltd**

**'Flamebreak'**

**30 Minute Fire Resisting Doorsets**

**Report No: FEA/F98164 Revision G**

**Valid From: 22 September 2007**

**Valid Until: 22 September 2012**



**committed to excellence**

[www.chilternfire.co.uk](http://www.chilternfire.co.uk)

[www.chilterndynamics.co.uk](http://www.chilterndynamics.co.uk)

[www.qmark.info](http://www.qmark.info)

**Prepared for:  
Pacific Rim Wood Ltd**

**(Address held on file)**

This document is confidential and remains the property of Chiltern International Fire Ltd. *The legal validity of this report can only be claimed on the presentation of the complete report.*

## Contents

	Page No
1 Introduction .....	3
2 General Description of Construction .....	3
3 Leaf Sizes and Configurations .....	4
4 Leaf Size Adjustment.....	4
5 Overpanels.....	5
6 Glazing .....	5
7 Door Frames .....	7
8 Edging Materials.....	9
9 Leaf Facing Materials .....	9
10 Intumescent Materials .....	10
11 Adhesives.....	11
12 Tested Hardware.....	11
13 Additional & Alternative Hardware .....	11
14 Door Gaps.....	14
15 Fixings.....	14
16 Classification of Timber .....	14
17 Sealing to Structural Opening.....	15
18 Insulation.....	15
19 Smoke Control.....	15
20 Conclusion .....	16
21 Declaration by the Applicant.....	16
22 Limitations .....	17
23 Validity .....	17
Appendix A - Test data.....	18
Appendix B - Glazing systems.....	20
Appendix C - Revisions .....	22
Appendix D - Data sheets .....	23

*The legal validity of this report can only be claimed on presentation of the complete report.*



## 1 Introduction

This document constitutes a global assessment to collate the fire resistance test evidence for Pacific Rim Wood Ltd 'Flamebreak' 30 minute fire resisting doorsets, a construction manufactured by P.T. Kutai Timber of Indonesia. The assessment uses established extrapolation and interpretation techniques in order to extend the scope of application. It does this by determining the limits for the design, based on the tested constructions and performances obtained. The assessment is an evaluation of the potential fire resistance performance, if the elements were to be tested in accordance with BS476: Part 22: 1987.

## 2 General Description of Construction

The construction of Flamebreak 30 door leaves includes the following basic components in the design:

Component		Species/ type	Configuration (all dimensions in mm)		Min. density (kg/m <sup>3</sup> )
<b>Core</b>		Parasoriant es falcateri a or Albisia falcata	3 layers of lamels lain in alternate directions – grooved to accept the stiles and rails.		280
			<b>Single Doorsets</b>	<b>Double Doorsets</b>	
<b>Stiles</b>			Not required	Not required	-
<b>Rails</b>	Top	'Mixed tropical hardwood'	1 No 26-36 thick (depending on facing thickness) x 35 deep, incorporating a 9 x 9 tongue to locate into the core material. Doorsets with leaves over 2135 x 915 will feature a 70mm deep top rail.	1 No 26-36 thick (depending on facing thickness) x 35 deep, incorporating a 9 x 9 tongue to locate into the core material. Doorsets with leaves over 2135 x 915 will feature a 70mm deep top rail	610
	Bottom	-	Not required.	Not required	-
<b>Facings</b>		Various timber based products – see section 9 for details.	Between 4 – 9mm – see section 9 for details.		-
<b>Lippings</b>		Hardwood	6 mm to 18 mm		640

*The legal validity of this report can only be claimed on presentation of the complete report.*

The construction described above for this design does not require stiles or a bottom rail, since the testing has evaluated constructions with and without these elements. Stiles and bottom rails may be fitted if deemed necessary for non fire resistance related requirements, which are not covered by this document.

**Note:** Care must be taken to observe the restrictions that apply to the Flamebreak 30 design depending on the type and thickness of the facing material used. The restrictions are referenced in the data sheets in appendix D.

### 3 Leaf Sizes and Configurations

Assessment for increased leaf dimensions is based on the design's performance and the characteristics exhibited during test. Data sheets specifying the maximum assessed leaf sizes and graphs showing the permitted gradient between maximum height and width are contained in appendix D.

Unequal leaf double doorsets are covered by this assessment with no restriction on the smaller leaf dimension. Doorsets containing leaves with smaller dimensions than those stated are deemed to be less onerous and are therefore automatically covered.

Based on the test evidence listed in appendix A, this assessment covers the following doorset configurations:

Abbreviation	Description
LSASD & ULSASD	Latched & unlatched single acting single doorset
DASD	Double acting single doorset
LSASD+OP & ULSASD+OP	Latched & unlatched single acting single doorset with overpanel
DASD+OP	Double acting single doorset with overpanel
LSADD & ULSADD	Latched & unlatched single acting double doorset
DADD	Double acting double doorset
LSADD+OP & ULSADD+OP	Latched & unlatched single acting double doorset with overpanel
DADD+OP	Double acting double doorset with overpanel

### 4 Leaf Size Adjustment

Flamebreak 30 door leaves may be altered as follows:

Element	Reduction
Leaf	Door leaves of this design have been tested in single and double leaf configuration both with and without stiles and bottom rails. This therefore permits the door leaves to be reduced in height and / or width without restriction, providing that reduction in height is made from the bottom edge only and the top rail remains unaltered.
Lipping	For lipping requirements see section 8. If adjustments are made to lippings for site fitting purposes, these must not be reduced below the minimum dimensions stated in section 8.

*The legal validity of this report can only be claimed on presentation of the complete report.*



## 5 Overpanels

### 5.1 Solid

Overpanels of the same construction as the door leaves may be used either flush with the leaf heads or when separated by a transom. The following parameters apply:

- All Flamebreak 30 designs may be used in conjunction with an overpanel fitted with a transom.
- It is only permitted to use the Flamebreak 30 design faced with 4mm Plywood, in conjunction with a flush overpanel.

If a transom is used it must be to the same specification as the timber door frame (see section 7). Joints must be mortise and tenon, mortise housed or butt jointed and glued (urea formaldehyde) and screwed.

Overpanels must be fixed by the following method:

- Steel screws inserted through the rear of the door frame, passing at least 30mm into the centre line of the overpanel. Fixings must be no more than 100mm from each corner and a maximum of 250mm centres in between.

Maximum overpanel heights are as follows.

- Single doorsets - 2000mm
- Double doorsets - 1500mm

The intumescent seals specified for the jambs in appendix D, must also be fitted to all edges of the overpanel. The seals may be fitted in the overpanel edges or alternatively in the frame reveal.

### 5.2 Glazed Fanlights

Timber frame doorsets including a transom may have the overpanel section glazed in lieu of a section of door. The glazing system and glass must be able to demonstrate adequate performance when tested as a window or screen in accordance with BS476: Part 22: 1987 or BSEN 1634-1: 2000. The timber frame and glazing beads must be hardwood with a minimum density of 640 kg/m<sup>3</sup> and the frame section must be a minimum of 70mm x 44mm. MDF frame doorsets are not assessed for glazed fanlights.

## 6 Glazing

### 6.1 General

The testing conducted on the Flamebreak 30 design has demonstrated that the design is capable of tolerating glazed apertures, whilst providing a margin of over performance. Glazing is therefore acceptable within the following parameters.

The maximum assessed glazed area for all configurations is 1.44m<sup>2</sup>. The glazing system must be one of the following tested proprietary systems.

## 6.2 Assessed Glazing Systems

Glazing System	Manufacturer	Maximum Aperture Dimensions (m <sup>2</sup> )
1. Fireglaze 30	Sealmaster Ltd	1.44
2. Firestrip 30	Hodgsons Sealants Ltd	1.44
3. Therm-A-Strip	Intumescent Seals Ltd	1.44
4. Pyroglaze 30	Mann McGowan Ltd	0.72
5. 8193	Pyroplex Ltd	0.72
6. 30049	Pyroplex Ltd	0.72
7. 30054	Pyroplex Ltd	0.72
8. System 36	Lorient Polyproducts Ltd	0.72
9. Flexible Figure 1	Lorient Polyproducts Ltd	0.72

## 6.3 Assessed Glass Products

Glass types (trade names)	Manufacturer
1. 6 & 7mm Pyroshield	Pilkington Glass Ltd
2. 6mm Pyran S	Schott Glass Ltd
3. 7mm Pyroguard	CGI Ltd (limited to 0.87m <sup>2</sup> )
4. 7mm Pyrobelite	AGC Flat Glass Europe
5. 7mm Pyrodur	Pilkington Glass Ltd
6. 10mm Pyrodur	Pilkington Glass Ltd
7. 11mm Pyroguard	CGI Ltd (limited to 0.52m <sup>2</sup> )
8. 12mm Pyrobelite	AGC Flat Glass Europe
9. 15mm Pyrostop	Pilkington Glass Ltd
10. 16mm Pyrobel	AGC Flat Glass Europe

**Note:** All glass types must be fitted strictly in accordance with the manufacturer's tested details/installation requirements.

## 6.4 Glazing Beads & Installation

Glazing beads must be from hardwood as specified in the following table:

Material	Profile	Min Density (kg/m <sup>3</sup> )	Application
Hardwood	Splayed	640	All proprietary systems detailed in 6.2 and appendix B
Hardwood	Square	640	Proprietary systems 1,2 & 3 as specified in 6.2 and glass types 5-10 as specified in 6.3

A square bead profile may be used as an alternative to the splayed beads required for the proprietary systems, subject to the restricted glass types and glazing systems specified in the table above (see appendix B for square bead profile options).

Glazing bead fixings must be retained in position with 50mm long x 2mm diameter steel pins or 40mm long No 8 screws, inserted at 35-40° to the vertical at no more than 50mm from each corner and at 150mm maximum centres. Glazed openings must not be less than 100mm from any door edge. Multiple apertures are acceptable within the permitted glazed area, with a minimum dimension of 80mm between apertures. Aperture shape is not restricted, providing the glazing system and beads are compatible with that shape.

False timber beads may be bonded to the glass face with an intumescent mastic/silicon, or a 0.5-2mm thick self adhesive intumescent tape/strip. Suitable glass for this application is restricted to types 5-10.

Sectional drawings detailing the tested and approved proprietary glazing systems are contained in appendix B.

**Note:** All glass types must be fitted strictly in accordance with the manufacturers tested details/installation requirements.

## 7 Door Frames

### 7.1 Door Frame Construction

Door frames for Flamebreak 30 may be timber or MDF as follows:

Material	Minimum Section Size (mm)	Min Density (kg/m <sup>3</sup> )	Application	Leaf Size Range (mm)
Softwood/ hardwood	70 x 32	510	All configurations	All
MDF	70 x 30	700	All configurations	All

*The legal validity of this report can only be claimed on presentation of the complete report.*

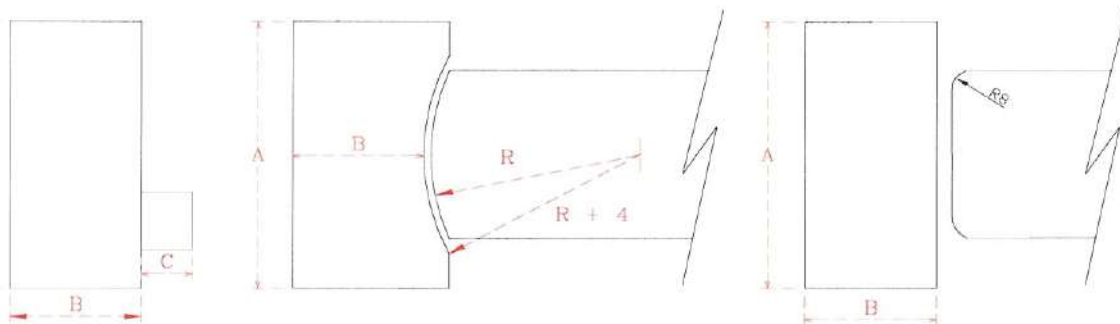


If the doorset features a transomed overpanel, the door frame must be softwood or hardwood with a minimum section of 70mm x 32mm and of the minimum densities stated above. All door frame timber must be to class J30 as specified in BS EN 942: 2007 (see section 16 for details).

A 12mm deep planted stop is adequate for single acting frames whilst double acting frames may be scalloped or square. If frames are square, the maximum radius to the corners of the leaf is 8mm. Frame joints must be mortice and tenoned, mitred, half lapped nailed or screwed and with no gaps.

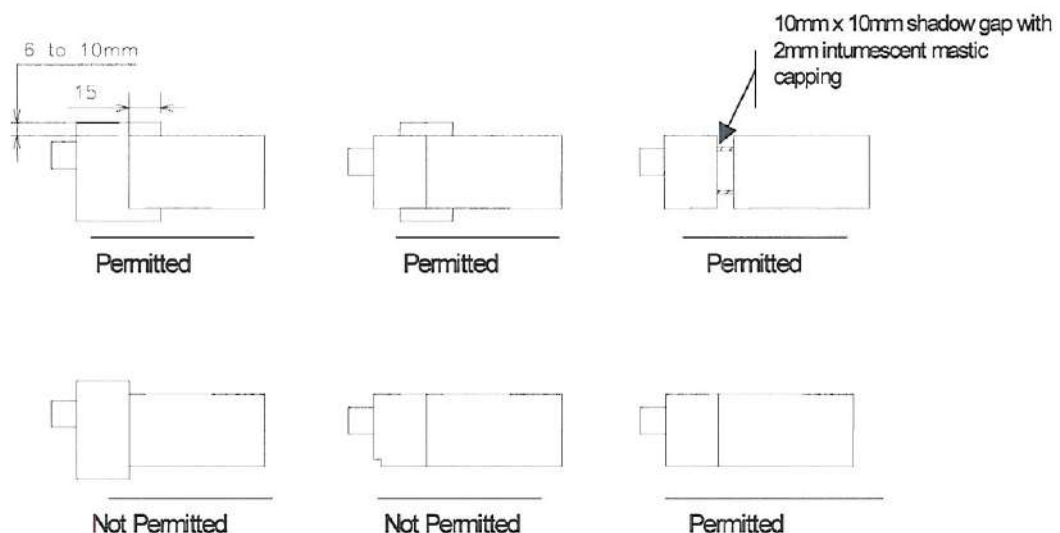
The following diagram depicts the assessed frame profiles and dimensions:

A = 70mm    B = 30-32mm (see table above)    C = 12mm    R = Radius of floor spring



## 7.2 Door Frame Construction

The following diagrams indicate acceptable door frame installations.



*The legal validity of this report can only be claimed on presentation of the complete report.*



## 8 Edging Materials

### 8.1 Timber Lippings

Flamebreak may be lipped in accordance with the following specification:

Material	Size (mm)	Min Density (kg/m <sup>3</sup> )
Hardwood meeting or exceeding class J30 as specified in BS EN 942: 2007 (see section 16 for details).	1. Flat = 6-18 thick	640
	2. Rounded = 8-20 thick	
	3. Rebated = 20-30 thick with an equal 12mm deep rebate	

- Single doorsets are not permitted with rebated vertical edges
- Single or double doorsets without overpanels cannot have rebated heads or jambs
- Single & double doorsets without stiles only require lipping on the vertical edges
- Doorsets with overpanels must be lipped on the vertical edges and additionally at the bottom edge of the overpanel and top edge of the doors
- Where applicable, lippings along the vertical edges must over-run the lippings along the horizontal edges
- Double doorsets with out overpanels are permitted with square or rebated meeting edges
- Double doorsets with overpanels may use a rebated overpanel junction or rebated meeting edges but must not be used concurrently

## 9 Leaf Facing Materials

The primary facing material for the Flamebreak 30 doorset design is 4mm or 6mm thick plywood or 6mm thick MDF. However, further testing has also demonstrated adequate performance with alternative materials. The tested and assessed alternative facings are summarised as follows:

Facing Materials	Thickness (mm)	Minimum density (kg/m <sup>3</sup> )
Plywood	4, 6, 9	610
Chipboard	4, 6, 9	500 - 650
MDF	4, 6, 9	710 – 760

In each case, the overall leaf thickness must remain a minimum of 44mm and therefore the core thickness must be increased or decreased proportionally in relation to the facing thickness.

For doorsets with 6-9mm facings, 3mm deep x 3mm wide feature grooves may be machined either horizontally or vertically in the facing. The grooves must not be closer than 100mm to each other or to any edge.

*The legal validity of this report can only be claimed on presentation of the complete report.*

Additional timber veneers, foils and plastic laminates up to 2mm thick are acceptable, in addition to planted timber mouldings, since these elements would degrade rapidly under test conditions without significant effect. The basic leaf thickness must not be reduced to accommodate these facings. Laminates must not be applied to the edges of doors. Metallic facings are not assessed.

## 10 Intumescent Materials

It is important that the type, size and fitting detail for the intumescent seals remains as tested. These products can often exhibit significantly different characteristics, which could alter the performances obtained during test, and therefore they must not be considered interchangeable, irrespective of whether the product has been tested and the seal dimensions are maintained. The intumescent materials tested for this doorset design are as follows:

Application	Location	Product/Manufacturer
Edge seals	Fitted in the frame jambs or leaf edges	<ol style="list-style-type: none"> <li>1. PVC encapsulated Palusol 100 – Mann McGowan</li> <li>2. Pyroplex – Pyroplex Ltd</li> </ol>
Hinges	Under both blades (for leaves over 2400mm high)	<ol style="list-style-type: none"> <li>1. 1mm Interdens – Dufaylite Developments Ltd</li> <li>2. 1mm MAP paper – Lorient Polyproducts Ltd</li> <li>3. 1mm Pyrostrip 300 – Mann McGowan Fabrications Ltd</li> <li>4. 1mm Therm-A-Strip – Intumescent Seals Ltd</li> <li>5. 1mm G30 – Sealmaster Ltd</li> </ol>
Lock/latches	Under forend & keep	Not required
Top pivots & flush bolts	Lining all sides of the mortices	<ol style="list-style-type: none"> <li>1. 1mm MAP paper - Lorient Polyproducts Ltd</li> <li>2. 1mm Interdens - Dufaylite Developments Ltd</li> <li>3. 1mm G30 – Sealmaster Ltd</li> <li>4. 1mm Therm-A-Strip - Intumescent Seals Ltd</li> <li>5. 1mm Therm-A-Flex - Intumescent Seals Ltd</li> </ol>
Cableways	Lining the base of the groove	<ol style="list-style-type: none"> <li>1. 2mm MAP paper - Lorient Polyproducts Ltd</li> <li>2. 2mm Interdens - Dufaylite Developments Ltd</li> <li>3. 2mm G30 – Sealmaster Ltd</li> <li>4. 2mm Therm-A-Strip - Intumescent Seals Ltd</li> <li>5. 2mm Therm-A-Flex - Intumescent Seals Ltd</li> </ol>

The seal specification for each configuration is shown in appendix D



## 11 Adhesives

The following adhesives must be used in construction:

<b>Facings</b>	Melamine or PVA
<b>Lipping</b>	Urea formaldehyde, resorcinol formaldehyde, PU
<b>Core</b>	PVA

## 12 Tested Hardware

The following hardware has been successfully incorporated in the tests on this design:

1. Royde & Tucker H105 steel butt hinges.
2. 100mm x 32mm Stainless steel butt hinges.
3. Dorma TS73V & TS83V overhead closers.
4. Henderson Hardware 63mm tubular mortice latch with aluminium lever handles.
5. Nemeff latch (235mm x 20mm forend) with stainless steel lever handles.

## 13 Additional & Alternative Hardware

### 13.1 Hinges

Flamebreak leaves must be hung on a minimum of 3 hinges. Leaves over 2300mm high must fit 4 hinges. Hinges with the following specification are acceptable:

<b>Blade height:</b>	90 – 120mm						
<b>Blade width (excluding knuckle):</b>	30 – 35 mm						
<b>Blade thickness:</b>	2.5-4 mm						
<b>Fixings:</b>	Minimum of 4 No. 30mm long No. 8 or No.10 steel wood screws per blade						
<b>Materials:</b>	Steel, stainless steel, or brass						
<b>Hinge positions (to top of blade):</b>	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Top:</td> <td>150 – 180mm from the head</td> </tr> <tr> <td>2<sup>nd</sup> and 3<sup>rd</sup></td> <td>equispaced between top and bottom</td> </tr> <tr> <td>Bottom</td> <td>280 – 350mm from the foot</td> </tr> </table>	Top:	150 – 180mm from the head	2 <sup>nd</sup> and 3 <sup>rd</sup>	equispaced between top and bottom	Bottom	280 – 350mm from the foot
Top:	150 – 180mm from the head						
2 <sup>nd</sup> and 3 <sup>rd</sup>	equispaced between top and bottom						
Bottom	280 – 350mm from the foot						
<b>Intumescent protection:</b>	See section 10						

*The legal validity of this report can only be claimed on presentation of the complete report.*

### 13.2 Latches and locks

Latches and locks must either be as tested, or alternatively components with the following specification are acceptable:

<b>Maximum forend and strike plate dimensions:</b>	200mm high by 28mm wide by 4mm thick
<b>Maximum body dimensions:</b>	18mm thick by 150mm wide by 180mm high.
<b>Intumescent protection:</b>	Not required
<b>Materials:</b>	All parts essential to the locking/latching action (including the latch bolt, forend and strike) to be steel or brass

### 13.3 Automatic Closing

Automatic closing devices, must either be as tested or components of equal specification that have demonstrated contribution to the required performance of these types of 30 minute doorset design, when tested to BS476: Part 22: 1987 or BSEN 1634-1: 2000.

**Note:** The top pivots to floorspring assemblies must be protected with 1mm thick intumescent gasket (see section 10) or alternatively the manufacturers tested intumescent gaskets.

### 13.4 Flush Bolts

Flush bolts may be incorporated into the top and bottom of the meeting edge of the inactive leaf of a double doorset, provided that the following maximum dimensions are not exceeded;

200mm long x 20mm deep x 20mm wide.

Flush bolts must be steel or brass and the mortice must be as tight to the mechanism as is compatible with its operation. All edges of the mortice must be lined with an intumescent gasket (see section 10).

### 13.5 Pull Handles

These may be surface-fixed to the door leaf provided that they are steel or brass and the length is limited to 1200 mm between the fixing points. No additional intumescent protection is required provided that the hole for the bolt through the leaf is tight.

### 13.6 Push Plates/Kick Plates

Face-fixed hardware such as push plates and kick plates may be fitted to the doorsets provided that their fitting requires the removal of no part of the door leaf. These items of hardware must not amount to more than 20% of the door leaf area.

*The legal validity of this report can only be claimed on presentation of the complete report.*



### **13.7 Door Selectors**

These may be freely applied, provided that they are not invasive in the leaf edges or door frames. Products that are invasive will require fire resistance test/assessment evidence to support their use.

### **13.8 Door Security Viewers**

Door security viewers with brass or steel bodies of a diameter less than or equal to 15mm may be used provided that the through-hole is bored tight to the case of the viewer (maximum tolerance +1 mm). Lenses must be glass and the item must be bedded in to a tested intumescent mastic.

### **13.9 Panic Hardware**

Panic hardware may be fitted, provided that its installation does not require the removal of any timber from the leaf, stop or frame reveal and it in no way interferes with the self-closing action of the door leaf.

### **13.10 Air Transfer Grilles**

Air transfer grilles may be fitted providing the product has suitable test evidence to BS 476: Part 22: 1987 or BSEN 1634-1: 2000 that demonstrates a minimum 30 minutes integrity performance when installed within a timber based doorset of comparable thickness. Margins to the leaf edges will remain as detailed for glazing and the position of the unit will be dictated by the pressure regime tested in the proving evidence (normally below mid height). The area occupied by the air transfer grille must not exceed 0.2m<sup>2</sup> and must be deducted from the percentage of glazing, if both elements are fitted.

### **13.11 Acoustic, Weather and Dust Seals**

Silicon based flame retardant acoustic, weather and dust seals (e.g. Lorient IS1212, IS1511, IS7025, IS7060) may be fitted to this doorset design with out compromising the performance, providing their fitting does not interfere with the activation of the intumescent seals or hinder the self closing function of the leaves:

### **13.12 Threshold Seals**

The following types of automatic threshold drop seals may be recessed in to the bottom rail of leaves to this design with out compromising the performance:

Lorient Polyproducts	IS8010si
Raven	RP8
Athmer	Schall-Ex Duo L-15

Alternative products may be used providing they are essentially of the same construction, materials and dimensions.

### 13.13 Cable-Way

Based on the integrity performance of the doorset construction, with no burn through of the core material, we consider it acceptable to allow the provision for a concealed cable-way to facilitate electro-magnetic closing/latching mechanisms. This approval is subject to the hardware manufacturer having the appropriate test evidence for the product for use with this type of 30 minute construction. The cable-way may be concealed in one of the following ways:

- An 8mm (maximum) diameter hole centrally drilled in the core material extending horizontally across the width of the leaf.
- A central 8mm x 8mm groove in the edges of the core from mid height on one edge passing around the bottom of the leaf and retiring up the opposite edge. The base of the groove must be lined with 2mm thick intumescent gasket (see section 10) and the lipping bonded over the top of the wire-way.

### 13.14 Letter Boxes/Plates

Letter boxes/plates may be fitted providing the product can demonstrate contribution to the required performance of this type of 30 minute doorset design, when tested to BS476: Part 22: 1987 or BSEN 1634-1: 2000 and installed at the proposed location, within a timber based doorset of comparable thickness. Margins to the leaf edges must remain as specified for glazing.

## 14 Door Gaps

If substantially different gaps are employed, the fire resistance performance of this doorset design may change. The following table is presented for guidance.

Location	Dimension
Door edge gaps	Representative of those tested but as a guideline, a maximum of 4mm
Alignment tolerances	Leaves must not be proud of each other or from the door frame by more than 1mm.
Threshold	10mm between bottom of leaf and top of floor covering

## 15 Fixings

The supporting construction must be capable of staying in place and intact for the full period of fire resistance required from the doorset. The frame jambs are to be fixed to the supporting construction using steel fixings at 600mm maximum centres. The fixings must be of the appropriate type for the supporting construction and must penetrate to a minimum depth of 40mm. It is not necessary to fix the frame head, although packers must be inserted.

## 16 Classification of Timber

All timber used for door frames, lipping and glazing beads, must meet or exceed class J30 as specified in BSEN 942: 2007, providing any defects are repaired.

*The legal validity of this report can only be claimed on presentation of the complete report.*



## 17 Sealing to Structural Opening

The door frame to structural opening gap must be protected using one of the following methods:

1. Gaps up to 20mm must be tightly packed with mineral fibre capped with a 10mm depth of a tested acrylic intumescent mastic on both sides (a 10mm x 10mm shadow gap may be used with this detail).
2. Full depth timber/timber based composite material or non-combustible subframe up to 20mm thick, with gaps up to 10mm between components sealed with a 10mm depth of a tested acrylic intumescent mastic on both sides or full depth tested expanding PU foam.
3. Full depth timber/timber based composite material or non-combustible subframe up to 40mm thick, with no gaps between the components and fitted with a minimum of 10mm thick architraves.
4. Gaps up to 20mm filled with proprietary product tested for similar gap filling applications to the required integrity (e.g. expanding PU foam or preformed compressible intumescent foam)

Guidance for various methods of sealing the frame to structural opening gap is also given in BS 8214: 2008, "Code of practice for fire door assemblies with non-metallic leaves", which may be referred to where appropriate.

## 18 Insulation

Insulation performance may be claimed for a doorset to this design meeting the following:

Type	Details
Partially insulating	Doorsets incorporating up to 20% of non-insulating glazing
Fully insulating	Doorsets unglazed or including 30 minute insulating glazing (e.g. 15mm Pyrostop or 16mm Pyrobel)

## 19 Smoke Control

If the doorset design is required to provide a smoke control function to comply with Building Regulations, then it must be fitted with a smoke seal or combined intumescent/smoke seal, that has been tested in accordance with BS 476: Part 31: Section 31.1 and demonstrated to maintain the leakage rate below  $3\text{m}^3/\text{m}/\text{h}$  when tested at 25Pa. Providing the smoke seals, any interruptions, door gaps, type/configuration of door is consistent with the tested detail, then the doorset will comply with current smoke control legislation and a suffix 'S' may be added to the designation. Any other installed components where smoke leakage may occur must also be taken into account.

**Note:** The incorrect specification and fitting of smoke seals may impair the operation of a fire resisting doorset assembly such that integrity is reduced, or in the extreme case completely diminished.

*The legal validity of this report can only be claimed on presentation of the complete report.*

## 20 Conclusion

If Flamebreak 30 doorsets, constructed in accordance with the specification documented in this global assessment, were to be tested in accordance with BS476 : Part 22 : 1987, it is our opinion that they would provide a minimum of 30 minutes integrity and insulation (subject to section 18).

## 21 Declaration by the Applicant

- 1) We the undersigned confirm that we have read and comply with obligations placed on us by FTSG Resolution No 82: 2001.
- 2) We confirm that the component or element of structure, which is the subject of this assessment, has not to our knowledge been subjected to a fire test to the Standard against which this assessment is being made.
- 3) We agree to withdraw this assessment from circulation should the component or element of structure be the subject of a fire test to the Standard against which this assessment is being made.
- 4) We are not aware of any information that could adversely affect the conclusions of this assessment.
- 5) If we subsequently become aware of any such information we agree to ask the assessing authority to withdraw the assessment.

Signed

Name:

For and on behalf of Pacific Rim Wood Ltd




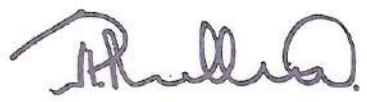
## 22 Limitations

The following limitations apply to this assessment:

- 1) This assessment addresses itself solely to the elements and subjects discussed and does not cover any other criteria. All other details not specifically referred to should remain as tested or assessed.
- 2) This assessment is issued on the basis of test data and information to hand at the time of issue. If contradictory evidence becomes available, CIF reserves the right to withdraw the assessment unconditionally but not retrospectively.
- 3) This assessment has been carried out in accordance with Fire Test Study Group Resolution No 82: 2001.
- 4) Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
- 5) This assessment relates only to those aspects of design, materials and construction that influence the performance of the element(s) under fire resistance test conditions. It does not purport to be a complete specification ensuring fitness for purpose and long-term serviceability. It is the responsibility of the client to ensure that the element conforms to recognised good practice in all other respects and that, with the incorporation of the guidance given in this assessment, the element is suitable for its intended purpose.

## 23 Validity

- 1) The assessment is initially valid for five years after which time it must be submitted to CIFL for technical review.
- 2) This assessment report is not valid unless it incorporates the declaration given in Section 21 duly signed by the applicant.

<b>Signature:</b>		
<b>Name:</b>	<b>P N Barker</b>	<b>J P Mullett</b>
<b>Title:</b>	Senior Consultant	Principal Consultant

*The legal validity of this report can only be claimed on presentation of the complete report.*

## Appendix A Tests and Assessments

### Primary Data

Test Reference	Configuration	Leaf Size (mm)	Test Standard	Integrity (min)
RF98033	ULSADD	2135 x 915 x 45	BS476: Part 22: 1987	36
RF98075	2 No. ULSASD	A = 2055 x 865 x 44 B = 2135 x 916 x 44	BS476: Part 22: 1987	A = 31 B = 33
RF00044	2 No. ULSASD (stiles & rails no lippings)	2080 x 915 x 44	BS476: Part 22: 1987	A = 19 B = 31
RF00046	ULSADD (stile removed lippings vertical edges only)	2135 x 835 x 44	BS476: Part 22: 1987	32
RF00098	2 No. ULSASD (stiles & top rail only)	A = 2080 x 916 x 44 B = 2080 x 860 x 44	BS476: Part 22: 1987	A = 32 B = 33
RF00166	ULSASD (lipped & unlipped)	A = 2440 x 1220 x 44 B = 2390 x 1154 x 44	BS476: Part 22: 1987	A = 37 B = 41
RF04011	LSASD	1976 x 758 x 44	BS476: Part 22: 1987	31
Warres 138803	ULSASD	2034 x 926 x 44	BS476: Part 22: 1987	36
RF05041	ULSADD (stile removed & lipped vertical edges only with rebated ME)	2041 x 825 x 44	BS476: Part 22: 1987	39

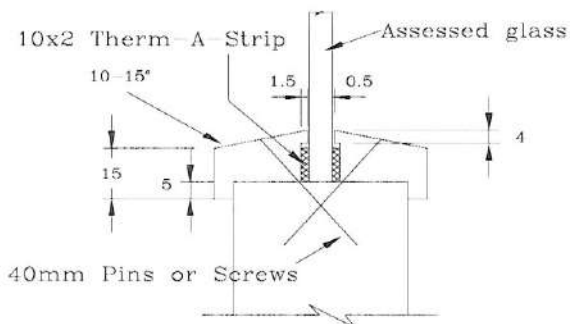
*The legal validity of this report can only be claimed on presentation of the complete report.*



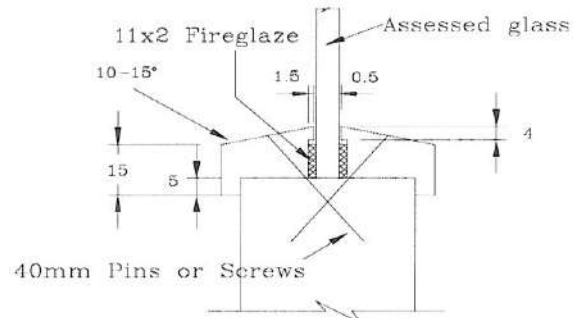
Test Reference	Configuration	Leaf Size (mm)	Test Standard	Integrity (min)
RF08100 (P.U gluelines for lipping, large glazed apertures – ply and MDF faces)	A: ULSADD	A: 2100 x 900/350 x 44	BS476: Part 22: 1987	A: 39*
	B: ULSASD	B: 2100 x 900 x 44	BS476: Part 22: 1987	B: 51
RF08116 (10 x 4 Pyroplex with ply and MDF faces)	A: ULSASD	A: 2040 x 826 x 44	BS476: Part 22: 1987	A: 45
	B: ULSASD	B: 2040 x 826 x 44	BS476: Part 22: 1987	B: 35
RF08118 (Large ply face doorsets with overpanel and rebated head junction with Pyroplex)	ULSADD + OP	2400 x 1000 x 44 + 400 OP	BS476: Part 22: 1987	41
WF137714 (Pyroplex glazing system 30054)	Indicative	990 x 900 x 44	BS476: 20: 1987	41
WF139878 (Pyroplex glazing system 30049)	Indicative	990 x 990 x 44	BS476: Part 20: 1987	29 (failure attributed to glass not glazing system)

*The legal validity of this report can only be claimed on presentation of the complete report.*

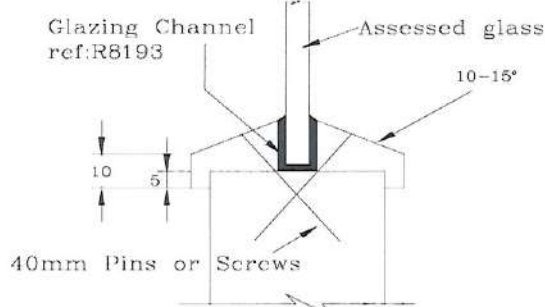
## Appendix B Proprietary 30 Minute Glazing Systems



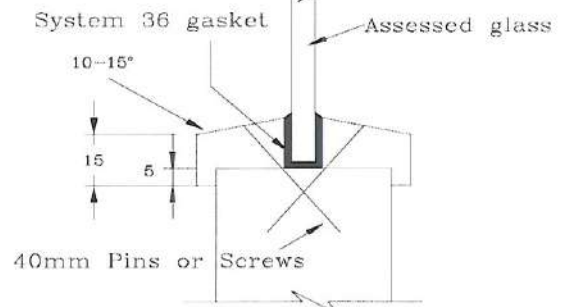
Intumescent Seals Ltd  
Therm-A-Strip



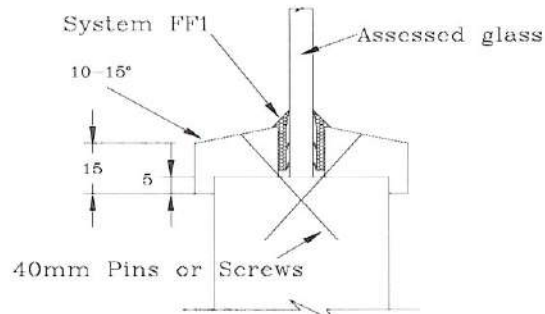
Sealmaster Ltd  
Fireglaze



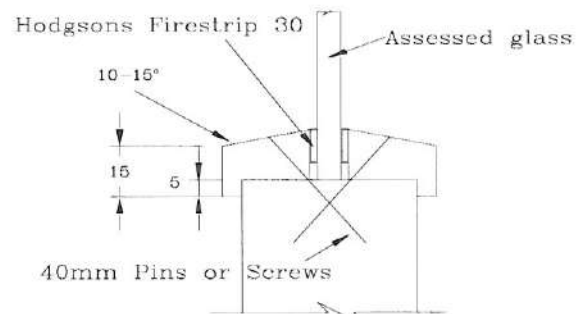
Reddiplex Group Plc



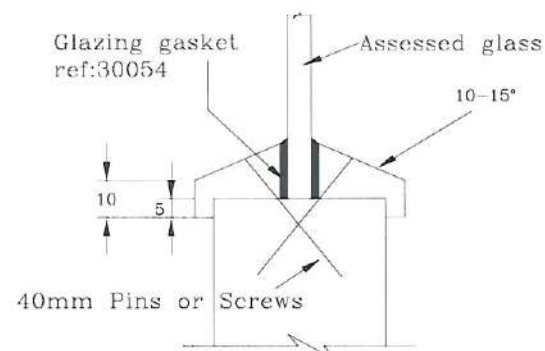
Lorient Polyproducts Ltd  
System 36



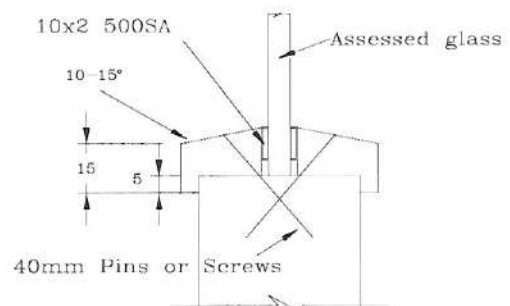
Lorient Polyproducts Ltd  
System FF1



Hodgsons Sealants Ltd  
Firestrip 30



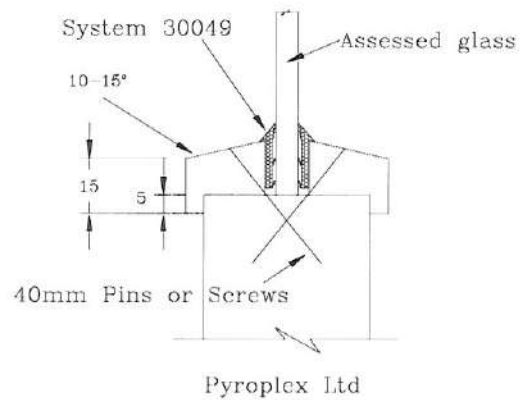
Pyroplex Ltd



Mann McGowan Ltd  
Pyroglaze 30

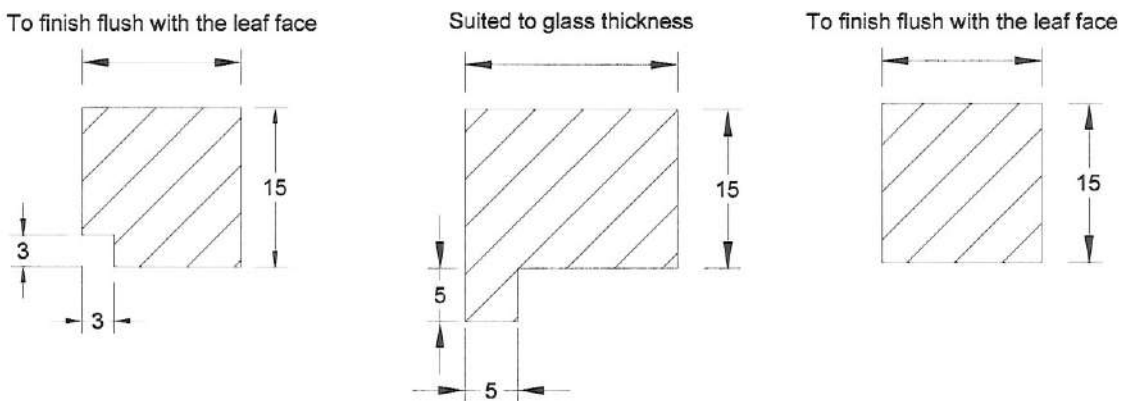
*The legal validity of this report can only be claimed on presentation of the complete report.*





### Assessed Square Glazing Bead Profiles

(the following square bead profile may be used as an alternative to the splayed beads detailed above - refer to section 6 for glazing system and glass restrictions)



*The legal validity of this report can only be claimed on presentation of the complete report.*

## Appendix C

### Revisions

Revision No.	Date	Description
Revision A (CIFL ref: FEA/F00125)	01.08.00	Inclusion of additional test evidence to justify the use of further facing materials. Recalculation of maximum approved leaf dimensions and justification for the alteration of leaf size.
Revision B (CIFL ref: Chilt/A01032)	26.02.01	<ol style="list-style-type: none"> <li>1. Inclusion of test evidence RF00166 and re-calculation of size range.</li> <li>2. Assessment of facing range for 2440 x 1220 max leaf size.</li> <li>3. Assessment of softwood door frames for 2440 x 1220 max leaf size</li> </ol>
Revision C (CIFL ref: Chilt/A02194)	04.10.02	Revalidation for a further five year period and minor alterations to the report format.
Revision D (CIFL ref: Chilt/A04051)	09.6.04	Inclusion of test evidence from RF04011 including feature grooves and 6mm lippings.
Revision E (CIFL ref: Chilt/A05159)	08.09.05	Revalidation for a further five year period and inclusion of test evidence from RF05041 including rebated meeting edges and alternative thickness' of face materials.
Revision F (CIFL ref: Chilt/A07168)	20.8.07	Inclusion of Lorient Type 617 intumescent seals and revalidation for 5 years
Revision G (CIFL ref: Chilt/A08228)	4.12.08	Inclusion of PU gluelines for lipping doors, glazed apertures to 1.44m <sup>2</sup> , MDF door frames, coverage for 10 x 4 Pyroplex seals (design limitations apply), overpanels with a flush and rebated junction, Lorient Type 617 written into a separate Flamebreak document, addition of Pyroplex glazing system 30054 based on WF137714, addition of Pyroplex glazing system based on WF30049

*The legal validity of this report can only be claimed on presentation of the complete report.*

## Appendix D

Data Sheets for:

**Pacific Rim Wood Ltd**

**'Flamebreak' 30 Doorsets**

**30 Minutes Fire Resistance**

---

*The legal validity of this report can only be claimed on presentation of the complete report.*



## Pacific Rim Wood Ltd – Flamebreak 30 Doorsets

### Latched Single Acting Single Doorsets - PYROPLEX

Leaf sizes	Facing Type	From:	Height (mm)	Width (mm)	
	All assessed faces types	To:	2034	x	975
			2135		926
<b>Max. Overpanel height (mm)</b>	2000mm Transomed overpanels only - see section 5				
<b>Glazing</b>		Max. glazed area:	1.44m <sup>2</sup> (see section 6 for restrictions)		
		Assessed systems:	See section 6 and Appendix B		
<b>Frame specification</b>	Min. Section (mm):	70 x 32	70 x 32	70 x 30	
	Material:	Softwood	Hardwood	MDF	
	Density (kg/m <sup>3</sup> ):	510	510	700	

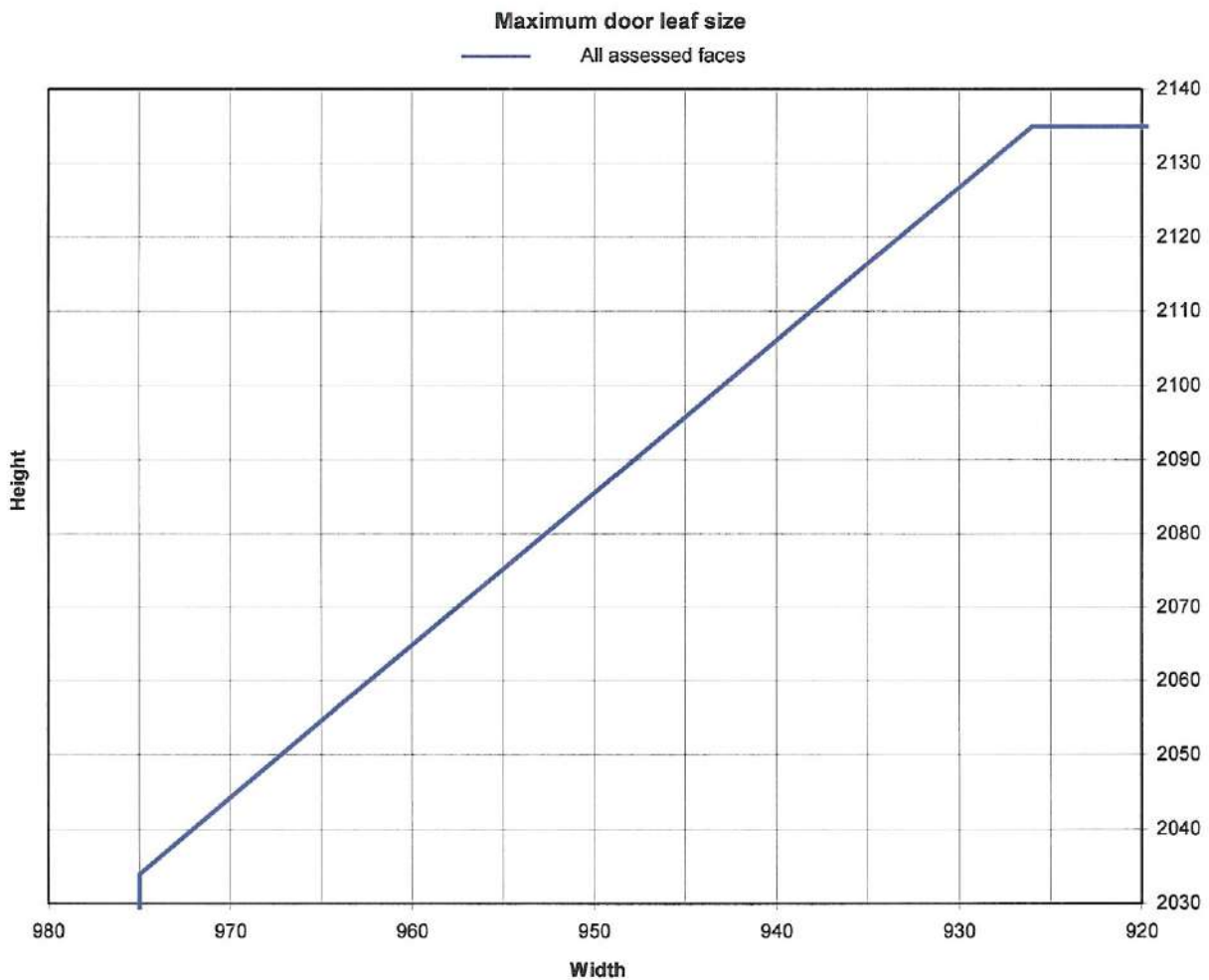
#### INTUMESCENT MATERIALS - PVC encapsulated Pyroplex

**HEAD:** 1 No. 15 x 4mm PVC encapsulated Pyroplex centrally fitted in the leaf or frame reveal. Increase to 20 x 4mm for leaves that use 9 thick MDF faces.

**JAMBS:** 1 No. 15 x 4mm PVC encapsulated Pyroplex centrally fitted in the leaf or frame reveal. Increase to 20 x 4mm for leaves that use 9 thick MDF faces.

**HARDWARE:**

For additional hardware protection see section 10



*The legal validity of this report can only be claimed on presentation of the complete report.*

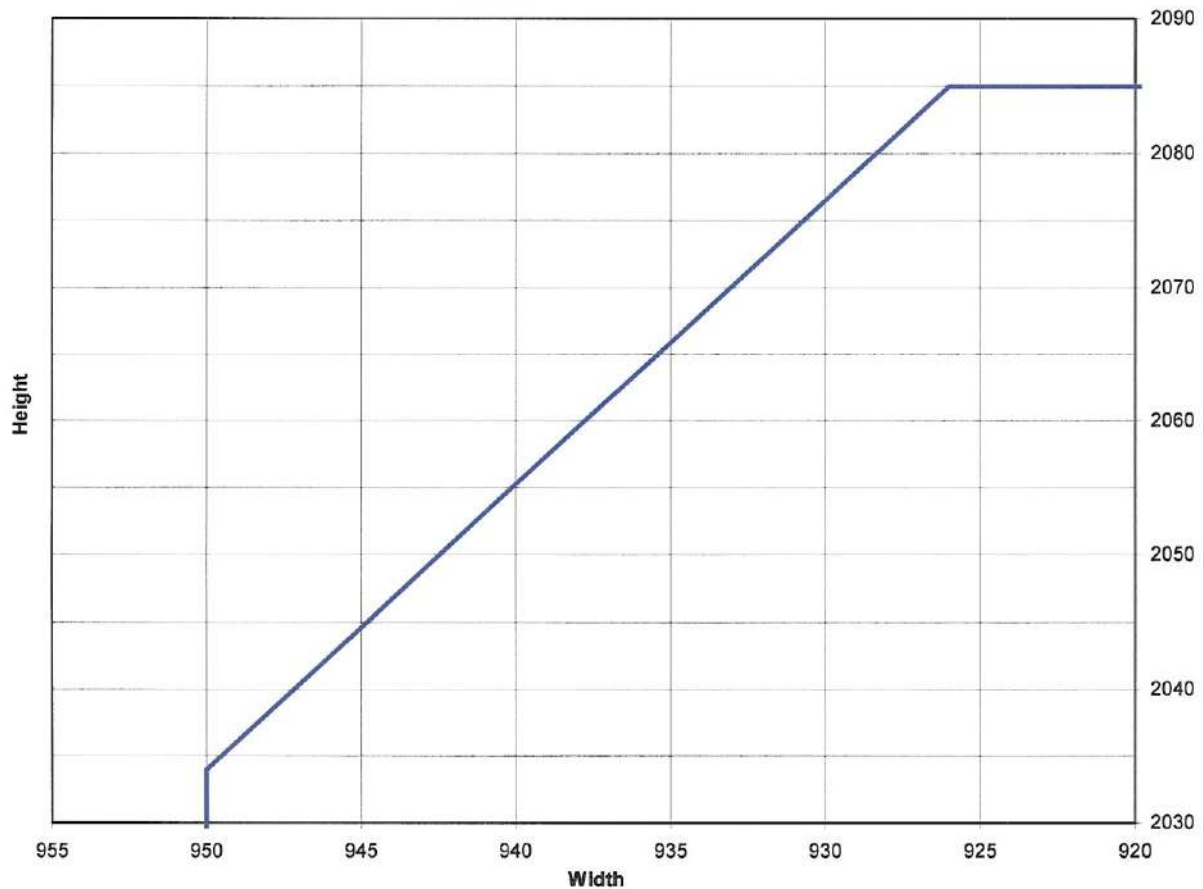
## Pacific Rim Wood – Flamebreak 30 Doorsets

### Unlatched Single Acting and Double Acting Single Doorsets - PYROPLEX

<b>Leaf sizes</b>	<b>Facing Type</b>		<b>Height (mm)</b>	<b>Width (mm)</b>	
	All assessed faces	From: To:	2034 2085	x	950 926
<b>Max. Overpanel height (mm)</b>		2000mm Transomed overpanels only - see section 5			
<b>Glazing</b>		Max. glazed area: Assessed systems:	1.44m <sup>2</sup> (see section 6 for restrictions) See section 6 and Appendix B		
<b>Frame specification</b>	Min. Section (mm):	70 x 32	70 x 32	70 x 30	
	Material:	Softwood	Hardwood	MDF	
	Density (kg/m <sup>3</sup> ):	510	510	700	
<p><b>INTUMESCENT MATERIALS - PVC encapsulated Pyroplex</b></p> <p><b>HEAD:</b> 1 No. 15 x 4mm PVC encapsulated Pyroplex centrally fitted in the leaf or frame reveal. Increase to 20 x 4mm for leaves that use 9 thick MDF faces.</p> <p><b>JAMBS:</b> 1 No. 15 x 4mm PVC encapsulated Pyroplex centrally fitted in the leaf or frame reveal. Increase to 20 x 4mm for leaves that use 9 thick MDF faces.</p> <p><b>HARDWARE:</b> For additional hardware protection see section 10</p>					

**Maximum door leaf size**

— All assessed faces

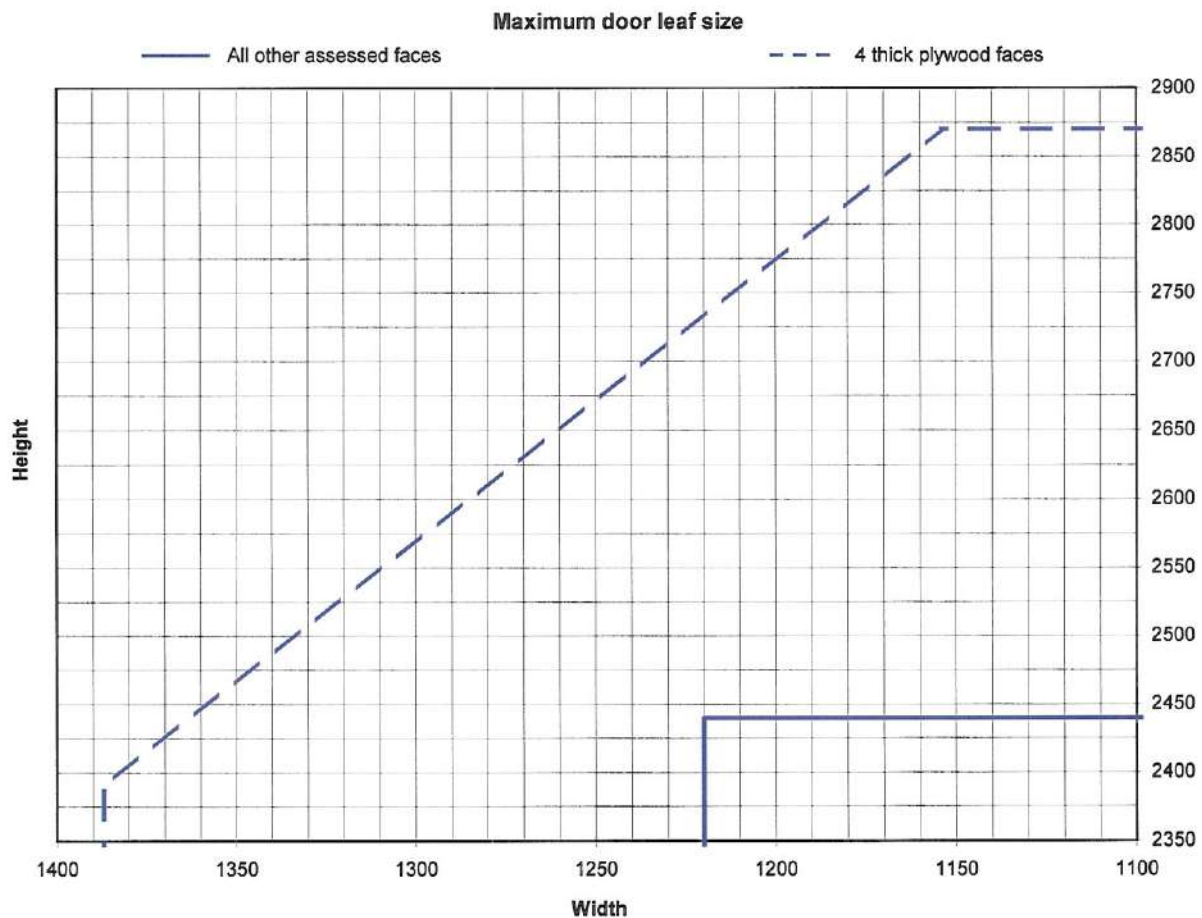


*The legal validity of this report can only be claimed on presentation of the complete report.*

## Pacific Rim Wood – Flamebreak 30 Doorsets

### Latched Single Acting Single Doorsets - PALUSOL

	Facing Type	Height (mm)	Width (mm)
<b>Leaf sizes</b>	4 thick Plywood	From:	2390 x 1387
		To:	2870 x 1154
	All other assessed faces	Max:	2440 x 1220
<b>Max. Overpanel height (mm)</b>	2000mm Transomed overpanels only - see section 5		
<b>Glazing</b>	Max. glazed area:	1.44m <sup>2</sup> (see section 6 for restrictions)	
	Assessed systems:	See section 6 and Appendix B	
<b>Frame specification</b>	Min. Section (mm):	70 x 32	70 x 32    70 x 30
	Material:	Softwood	Hardwood    MDF
	Density (kg/m <sup>3</sup> ):	510	510    700
<p><b>INTUMESCENT MATERIALS - PVC encapsulated Palusol 100</b></p> <p><b>HEAD:</b> 1 No. 15 x 4mm PVC encapsulated Palusol 100 centrally fitted in the leaf or frame reveal. Increase to 20 x 4mm for leaves that use 9 thick MDF faces. Leaves over 2390mm increase to 25 x 4mm.</p> <p><b>JAMBS:</b> 1 No. 15 x 4mm PVC encapsulated Palusol 100 centrally fitted in the leaf or frame reveal. Increase to 20 x 4mm for leaves that use 9 thick MDF faces. Leaves over 1100mm increase to 25 x 4mm.</p> <p><b>HARDWARE:</b> For additional hardware protection see section 10</p>			



*The legal validity of this report can only be claimed on presentation of the complete report.*



## Pacific Rim Wood – Flamebreak 30 Doorsets

### Unlatched Single Acting and Double Acting Single Doorsets - PALUSOL

Leaf sizes	Facing Type		Height (mm)		Width (mm)	
	4 thick Plywood	From:		2390	x	1362
To:			2820	x	1154	
All other assessed faces	Max:		2440	x	1220	
Max. Overpanel height (mm)	2000mm Transomed overpanels only - see section 5					
Glazing	Max. glazed area:	1.44m <sup>2</sup> (see section 6 for restrictions)				
	Assessed systems:	See section 6 and Appendix B				
Frame specification	Min. Section (mm):	70 x 32	70 x 32	70 x 30		
	Material:	Softwood	Hardwood	MDF		
	Density (kg/m <sup>3</sup> ):	510	510	700		

#### INTUMESCENT MATERIALS - PVC encapsulated Palusol 100

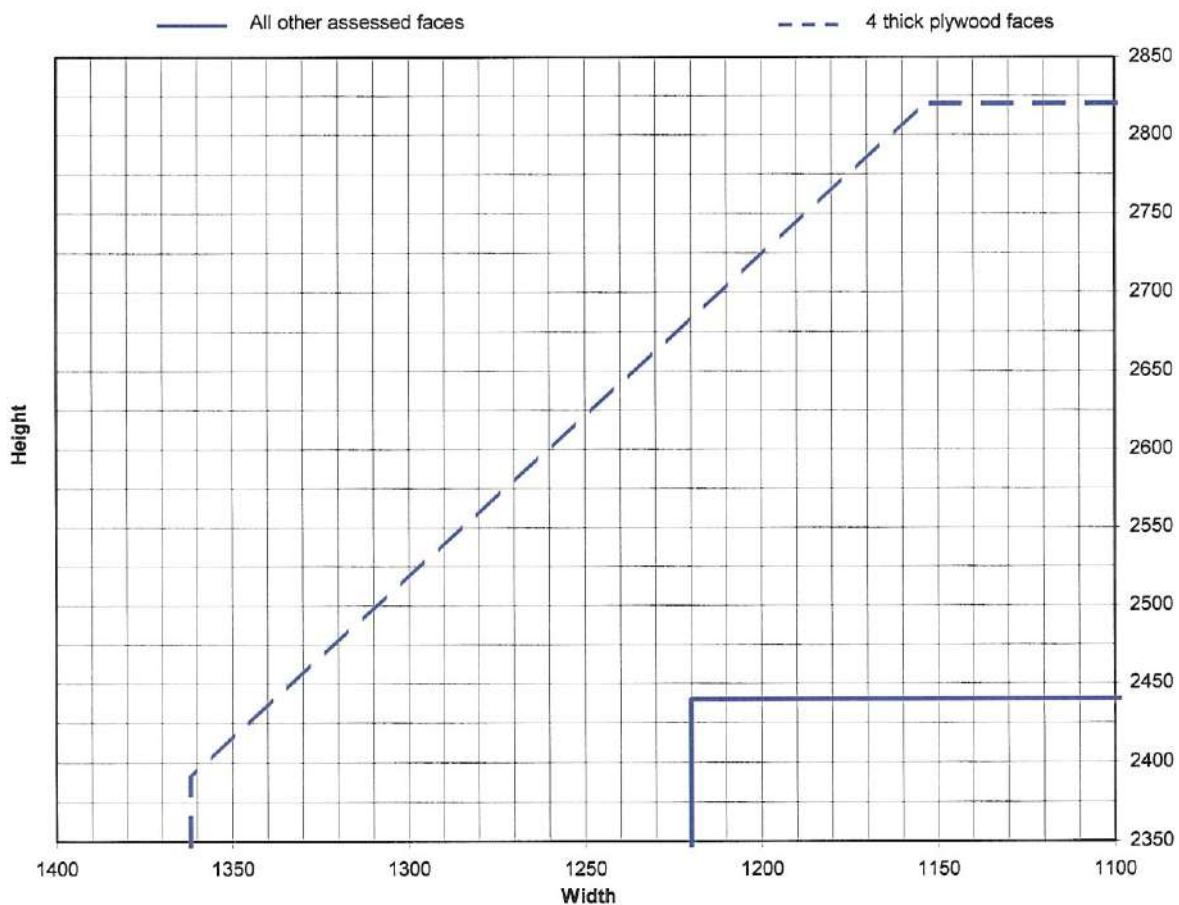
**HEAD:** 1 No. 15 x 4mm PVC encapsulated Palusol 100 centrally fitted in the leaf or frame reveal. Increase to 20 x 4mm for leaves that use 9 thick MDF faces. Leaves over 2390mm increase to 25 x 4mm.

**JAMBS:** 1 No. 15 x 4mm PVC encapsulated Palusol 100 centrally fitted in the leaf or frame reveal. Increase to 20 x 4mm for leaves that use 9 thick MDF faces. Leaves over 1100mm increase to 25 x 4mm.

**HARDWARE:**

For additional hardware protection see section 10

**Maximum door leaf size**



*The legal validity of this report can only be claimed on presentation of the complete report.*

## Pacific Rim Wood – Flamebreak 30 Doorsets

### Latched and Unlatched Single Acting and Double Acting Single Doorsets - PYROPLEX

Leaf sizes	Configuration		Height (mm)		Width (mm)	
	LSASD	From:		2040	x	1057
To:			2600	x	826	
ULSASD & DASD	From:		2040	x	1032	
	To:		2550	x	826	
<b>Max. Overpanel height (mm)</b>	2000mm Transomed overpanels only - see section 5					
<b>Glazing</b>	Max. glazed area:		1.44m <sup>2</sup> (see section 6 for restrictions)			
	Assessed systems:		See section 6 and Appendix B			
<b>Frame specification</b>	Min. Section (mm):		70 x 32		70 x 32	70 x 30
	Material:		Softwood		Hardwood	MDF
	Density (kg/m <sup>3</sup> ):		510		510	700
<b>Facing Type</b>	6 Thick MDF					

**INTUMESCENT MATERIALS - PVC encapsulated Pyroplex**

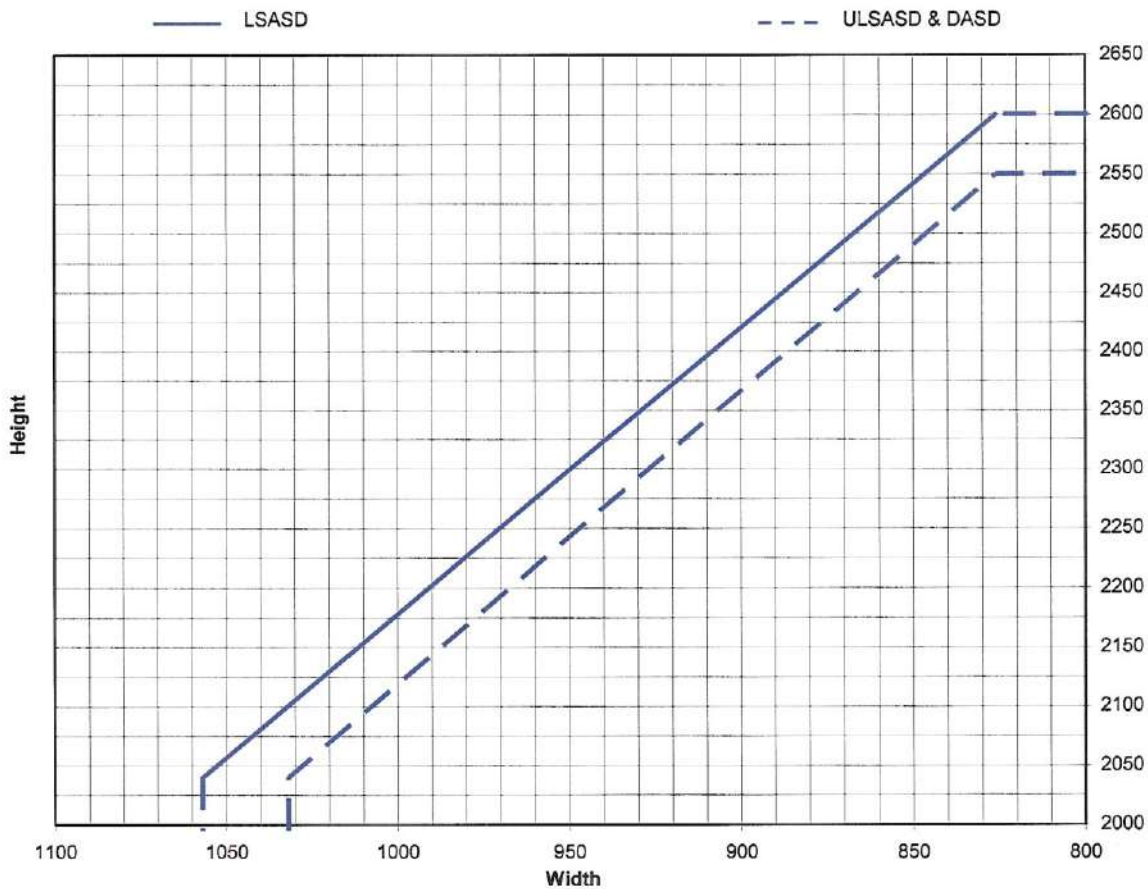
**HEAD:** 1 No. 10 x 4mm centrally fitted in the leaf or frame reveal. Increase to 15 x 4 for leaves above 2300mm in height.

**JAMBS:** 1 No. 10 x 4mm centrally fitted in the leaf or frame reveal. Increase to 15 x 4 for leaves above 2300mm in height.

**HARDWARE:**

For additional hardware protection see section 10

**Maximum door leaf size**



*The legal validity of this report can only be claimed on presentation of the complete report.*

## Pacific Rim Wood – Flamebreak 30 Doorsets

### Latched and Unlatched Single Acting and Double Acting Single Doorsets - PYROPLEX

Leaf sizes	Configuration		Height (mm)		Width (mm)	
	LSASD	From:		2040	x	919
To:			2260	x	826	
ULSASD & DASD	From:		2040	x	894	
	To:		2210	x	826	
Max. Overpanel height (mm)	2000mm Transomed overpanels only - see section 5					
Glazing		Max. glazed area:	1.44m <sup>2</sup> (see section 6 for restrictions)			
		Assessed systems:	See section 6 and Appendix B			
Frame specification	Min. Section (mm):		70 x 32		70 x 32	70 x 30
	Material:		Softwood		Hardwood	MDF
	Density (kg/m <sup>3</sup> ):		510		510	700
Facing Type	4 Thick plywood					

**INTUMESCENT MATERIALS - PVC encapsulated Pyroplex**

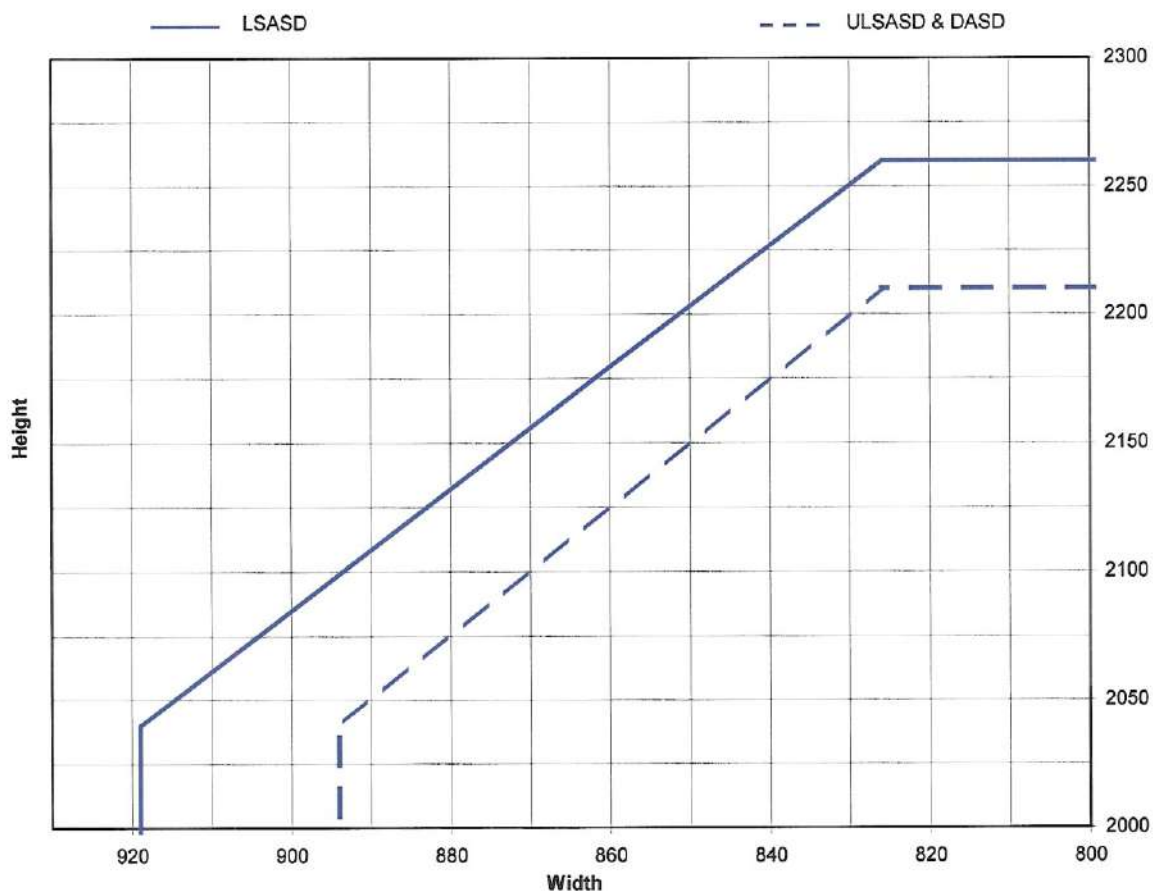
**HEAD:** 1 No. 10 x 4mm centrally fitted in the leaf or frame reveal.

**JAMBS:** 1 No. 10 x 4mm centrally fitted in the leaf or frame reveal.

**HARDWARE:**

For additional hardware protection see section 10

**Maximum door leaf size**



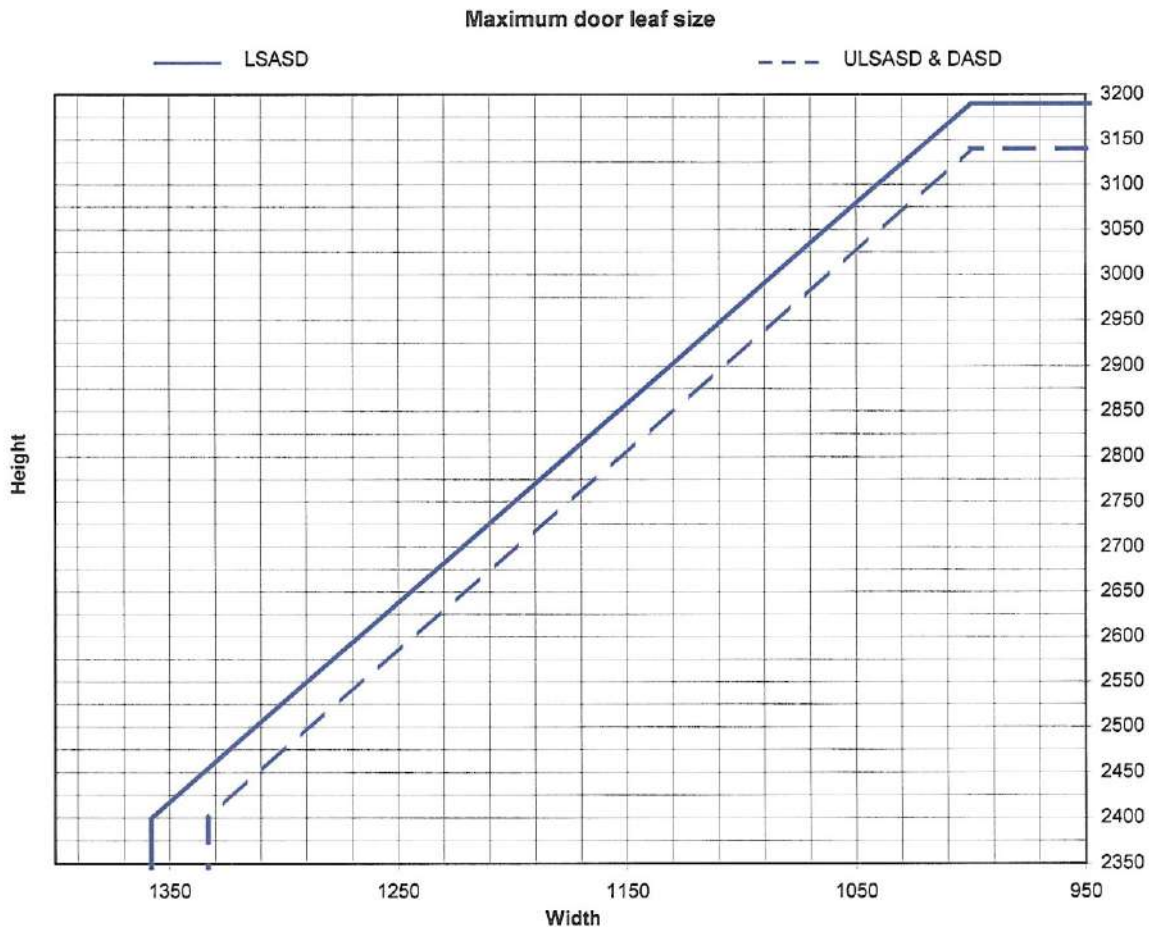
*The legal validity of this report can only be claimed on presentation of the complete report.*



## Pacific Rim Wood – Flamebreak 30 Doorsets

### Latched and Unlatched Single Acting and Double Acting Single Doorsets - PYROPLEX

Leaf sizes	Configuration		Height (mm)	Width (mm)	
	LSASD	From:	2400	x	1358
		To:	3190	x	1000
	ULSASD & DASD	From:	2400	x	1333
		To:	3140	x	1000
<b>Max. Overpanel height (mm)</b>		2000mm Transomed overpanels only - see section 5			
<b>Glazing</b>		Max. glazed area:	1.44m <sup>2</sup> (see section 6 for restrictions)		
		Assessed systems:	See section 6 and Appendix B		
<b>Frame specification</b>		Min. Section (mm):	70 x 32	70 x 32	70 x 30
		Material:	Softwood	Hardwood	MDF
		Density (kg/m <sup>3</sup> ):	510	510	700
<b>Facing Type</b>		4 thick plywood, 6 thick plywood, 6 thick MDF			
<b>INTUMESCENT MATERIALS - PVC encapsulated Pyroplex</b>					
HEAD: 2 No. 10 x 4mm centrally fitted and spaced 10mm apart in the leaf or frame reveal.					
JAMBS: 2 No. 10 x 4mm centrally fitted and spaced 10mm apart in the leaf or frame reveal.					
<b>HARDWARE:</b>					
For additional hardware protection see section 10					



*The legal validity of this report can only be claimed on presentation of the complete report.*

## Pacific Rim Wood – Flamebreak 30 Doorsets

### Latched and Unlatched Single Acting and Double Acting Single Doorsets + Overpanel - PYROPLEX

Leaf sizes	Configuration		Height (mm)		Width (mm)	
	LSASD + OP	From:		2400	x	1308
To:			3090	x	1000	
ULSASD & DASD + OP	From:		2400	x	1283	
	To:		3040	x	1000	
<b>Max. Overpanel height (mm)</b>		2000mm flush overpanels - see section 5				
<b>Glazing</b>		Max. glazed area:	1.44m <sup>2</sup> (see section 6 for restrictions)			
		Assessed systems:	See section 6 and Appendix B			
<b>Frame specification</b>	Min. Section (mm):		70 x 32		70 x 32	70 x 30
	Material:		Softwood		Hardwood	MDF
	Density (kg/m <sup>3</sup> ):		510		510	700
<b>Facing Type</b>		4 thick plywood				

#### INTUMESCENT MATERIALS - PVC encapsulated Pyroplex

##### HEAD:

**Square:** 2 No. 10 x 4mm centrally fitted and spaced 10mm apart in the leaf or bottom of overpanel.

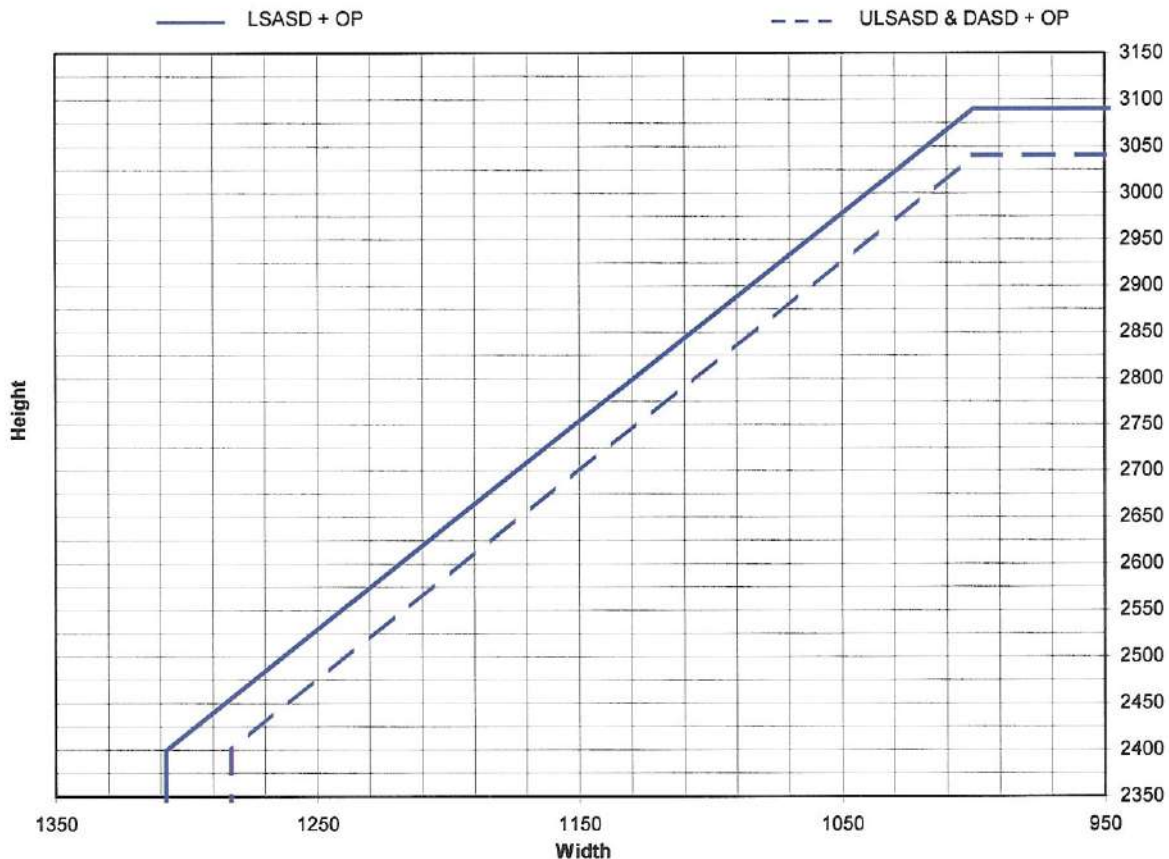
**Rebated:** 2 No. 10 x 4mm with one strip centrally fitted in the bottom of the leaf rebate and one strip centrally fitted in the bottom of the overpanel rebate

**JAMBS:** 2 No. 10 x 4mm centrally fitted and spaced 10mm apart in the leaf or frame reveal.

##### HARDWARE:

For additional hardware protection see section 10

**Maximum door leaf size**



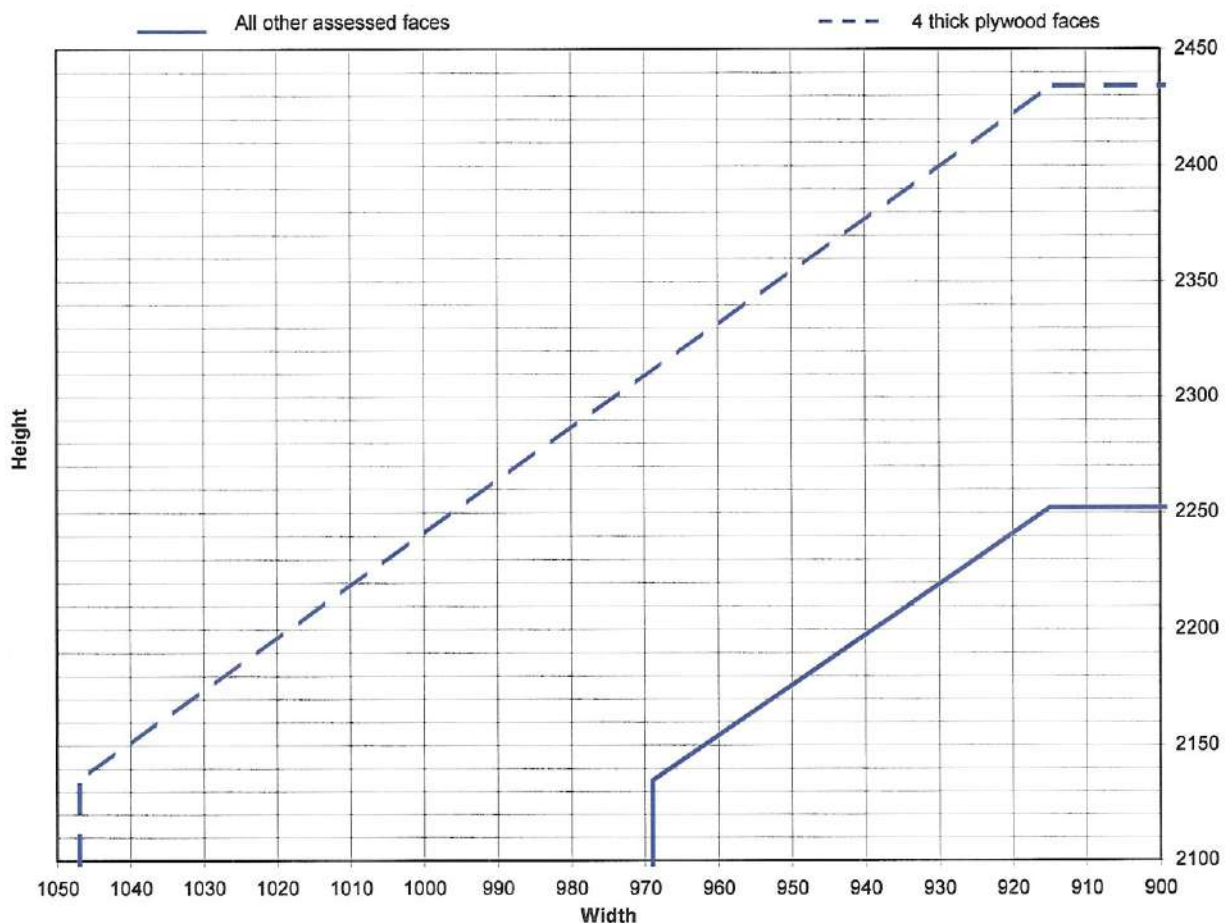
*The legal validity of this report can only be claimed on presentation of the complete report.*

## Pacific Rim Wood – Flamebreak 30 Doorsets

### Latched Single Acting Double Doorsets - PALUSOL

Leaf sizes	Facing Type		Height (mm)	Width (mm)	
	4 thick Plywood	From:	2135	x	1047
		To:	2434	x	915
	All other assessed faces	From:	2135	x	969
		To:	2252	x	915
<b>Max. Overpanel height (mm)</b>		1500mm Transomed overpanels only - see section 5			
<b>Glazing</b>		Max. glazed area:	1.44m <sup>2</sup> (see section 6 for restrictions)		
		Assessed systems:	See section 6 and Appendix B		
<b>Frame specification</b>		Min. Section (mm):	70 x 32	70 x 32	70 x 30
		Material:	Softwood	Hardwood	MDF
		Density (kg/m <sup>3</sup> ):	510	510	700
<p><b>INTUMESCENT MATERIALS - PVC encapsulated Palusol 100</b></p> <p><b>HEAD:</b> 1 No. 20 x 4mm PVC encapsulated Palusol 100 centrally fitted in the leaves or frame reveal.</p> <p><b>JAMBS:</b> 1 No. 20 x 4mm PVC encapsulated Palusol 100 centrally fitted in the leaves or frame reveal.</p> <p><b>MEETING EDGES:</b></p> <p><b>Square</b> - 1 No. 20 x 4mm PVC encapsulated Palusol 100 centrally fitted in one meeting edge.</p> <p><b>Rebated</b> - 1 No. 10 x 4mm PVC encapsulated Palusol 100 strip fitted centrally in the rebate of both edges.</p> <p><b>HARDWARE:</b></p> <p>For additional hardware protection see section 10</p>					

**Maximum door leaf size**



*The legal validity of this report can only be claimed on presentation of the complete report.*



## Pacific Rim Wood – Flamebreak 30 Doorsets

### Unlatched Single Acting and Double Acting Double Doorsets - PALUSOL

Leaf sizes	Facing Type	Height (mm)		Width (mm)	
	4 thick Plywood	From:	2135	x	1022
	To:	2384	x	915	
All other assessed faces	From:	2135	x	944	
	To:	2202	x	915	
Max. Overpanel height (mm)	1500mm Transomed overpanels only - see section 5				
Glazing	Max. glazed area:	1.44m <sup>2</sup> (see section 6 for restrictions)			
	Assessed systems:	See section 6 and Appendix B			
Frame specification	Min. Section (mm):	70 x 32	70 x 32	70 x 30	
	Material:	Softwood	Hardwood	MDF	
	Density (kg/m <sup>3</sup> ):	510	510	700	

**INTUMESCENT MATERIALS - PVC encapsulated Palusol 100**

**HEAD:** 1 No. 20 x 4mm PVC encapsulated Palusol 100 centrally fitted in the leaves or frame reveal.

**JAMBS:** 1 No. 20 x 4mm PVC encapsulated Palusol 100 centrally fitted in the leaves or frame reveal.

**MEETING EDGES:**

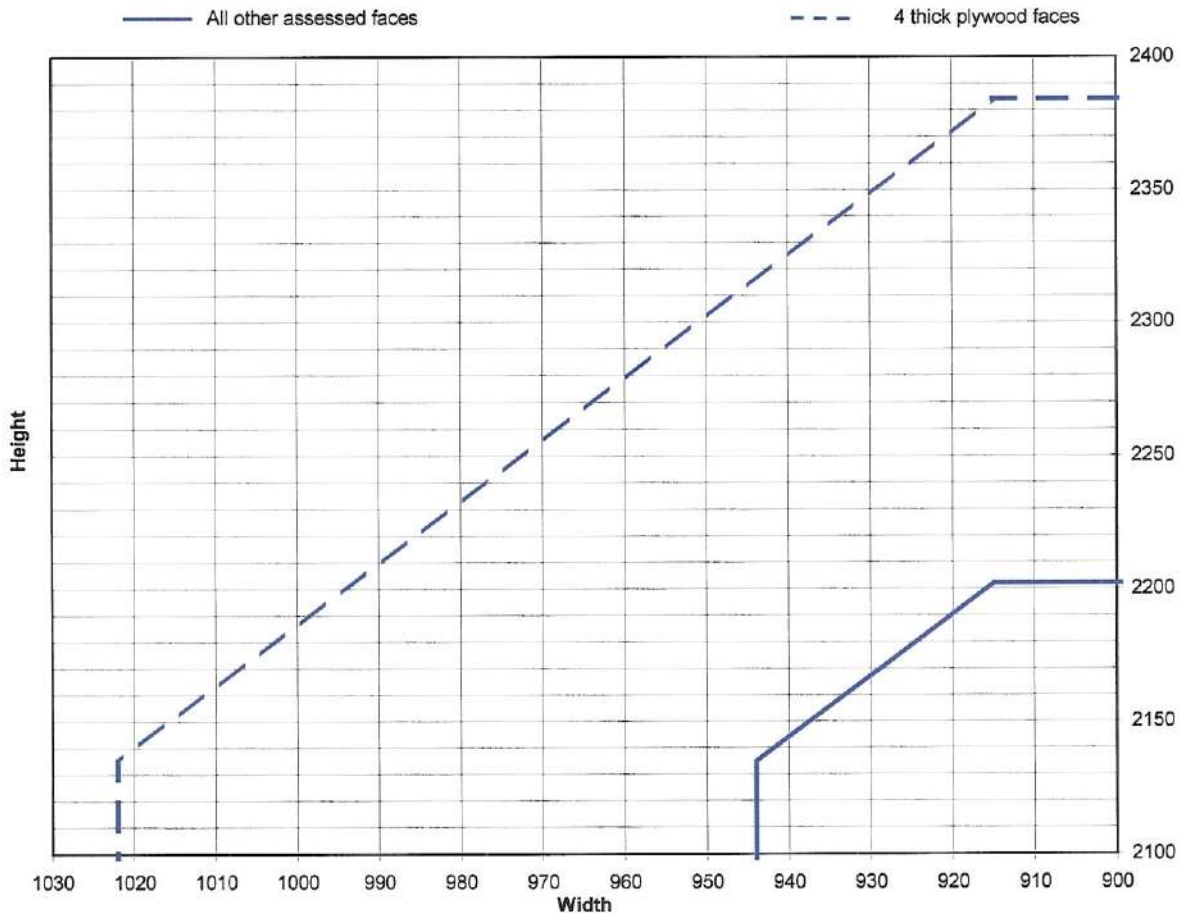
**Square** - 1 No. 20 x 4mm PVC encapsulated Palusol 100 centrally fitted in one meeting edge.

**Rebated** - 1 No. 10 x 4mm PVC encapsulated Palusol 100 strip fitted centrally in the rebate of both edges.

**HARDWARE:**

For additional hardware protection see section 10

**Maximum door leaf size**



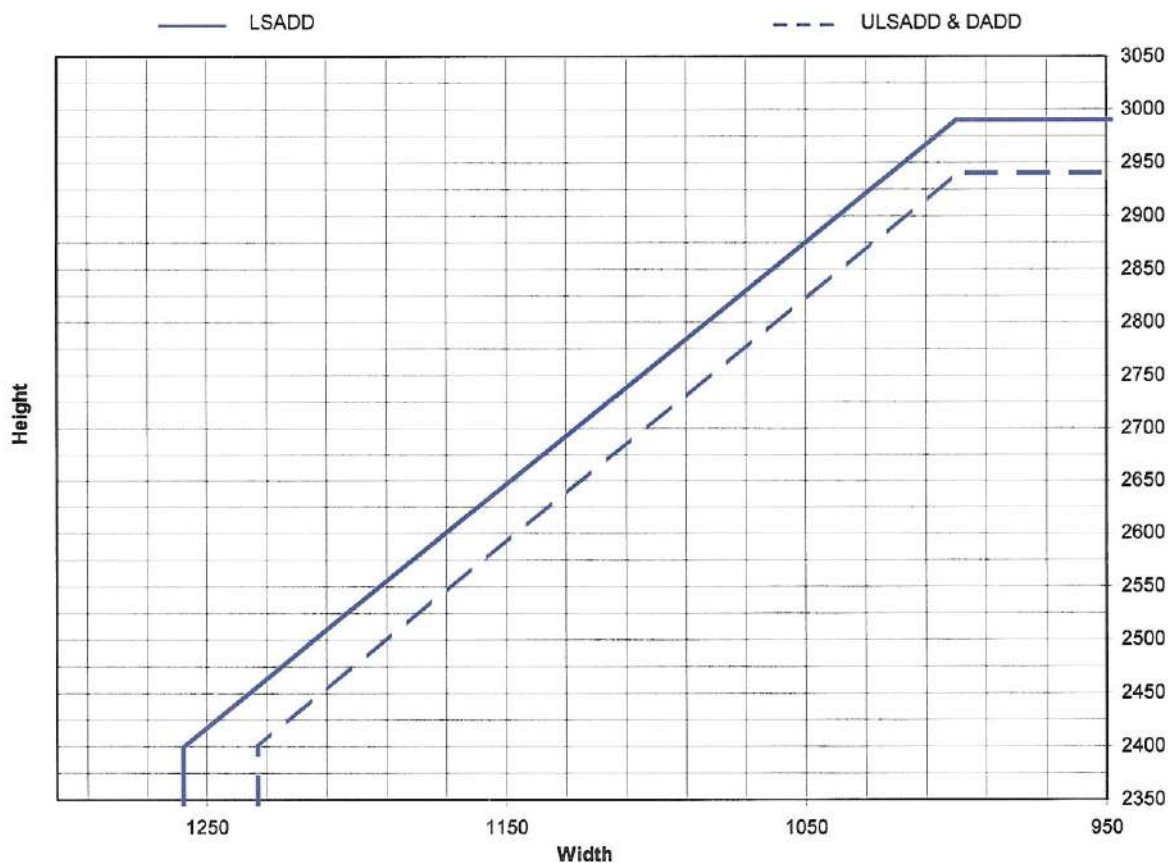
*The legal validity of this report can only be claimed on presentation of the complete report.*

## Pacific Rim Wood – Flamebreak 30 Doorsets

### Latched and Unlatched Single Acting and Double Acting Double Doorsets - PYROPLEX

Leaf sizes	Configuration	Height (mm)		Width (mm)		
		LSADD	From:	2400	x	1258
		To:	2990	x	1000	
	ULSADD & DADD	From:	2400	x	1233	
		To:	2940	x	1000	
<b>Max. Overpanel height (mm)</b>		1500mm transomed overpanels only - see section 5				
<b>Glazing</b>		Max. glazed area:	1.44m <sup>2</sup> (see section 6 for restrictions)			
		Assessed systems:	See section 6 and Appendix B			
<b>Frame specification</b>		Min. Section (mm):	70 x 32	70 x 32	70 x 30	
		Material:	Softwood	Hardwood	MDF	
		Density (kg/m <sup>3</sup> ):	510	510	700	
<b>Facing Type</b>		4 thick plywood, 6 thick plywood, 6 thick MDF				
<b>INTUMESCENT MATERIALS - PVC encapsulated Pyroplex</b>						
HEAD: 2 No. 10 x 4mm centrally fitted and spaced 10mm apart in each leaf or frame head.						
MEETING EDGES: 2 No. 10 x 4mm centrally fitted and spaced 10mm apart in one leaf only						
JAMBS: 2 No. 10 x 4mm centrally fitted and spaced 10mm apart in each leaf or frame reveal.						
<b>HARDWARE:</b>						
For additional hardware protection see section 10						

**Maximum door leaf size**



*The legal validity of this report can only be claimed on presentation of the complete report.*

## Pacific Rim Wood – Flamebreak 30 Doorsets

### Latched and Unlatched Single Acting and Double Acting Double Doorsets + Overpanels - PYROPLEX

Leaf sizes	Configuration		Height (mm)		Width (mm)	
	LSADD + OP	From:		2400	x	1208
To:			2890	x	1000	
ULSADD & DADD + OP	From:		2400	x	1183	
	To:		2840	x	1000	
<b>Max. Overpanel height (mm)</b>		1500mm flush overpanels - see section 5				
<b>Glazing</b>		Max. glazed area:	1.44m <sup>2</sup> (see section 6 for restrictions)			
		Assessed systems:	See section 6 and Appendix B			
<b>Frame specification</b>	Min. Section (mm):		70 x 32		70 x 32	70 x 30
	Material:		Softwood		Hardwood	MDF
	Density (kg/m <sup>3</sup> ):		510		510	700
<b>Facing Type</b>		4 thick plywood				

#### INTUMESCENT MATERIALS - PVC encapsulated Pyroplex

##### HEAD:

**Square:** 2 No. 10 x 4mm centrally fitted and spaced 10mm apart in each leaf or bottom of overpanel.

**Rebated:** 2 No. 10 x 4mm with one strip centrally fitted in the bottom of each leaf rebate and one strip centrally fitted in the bottom of the overpanel rebate

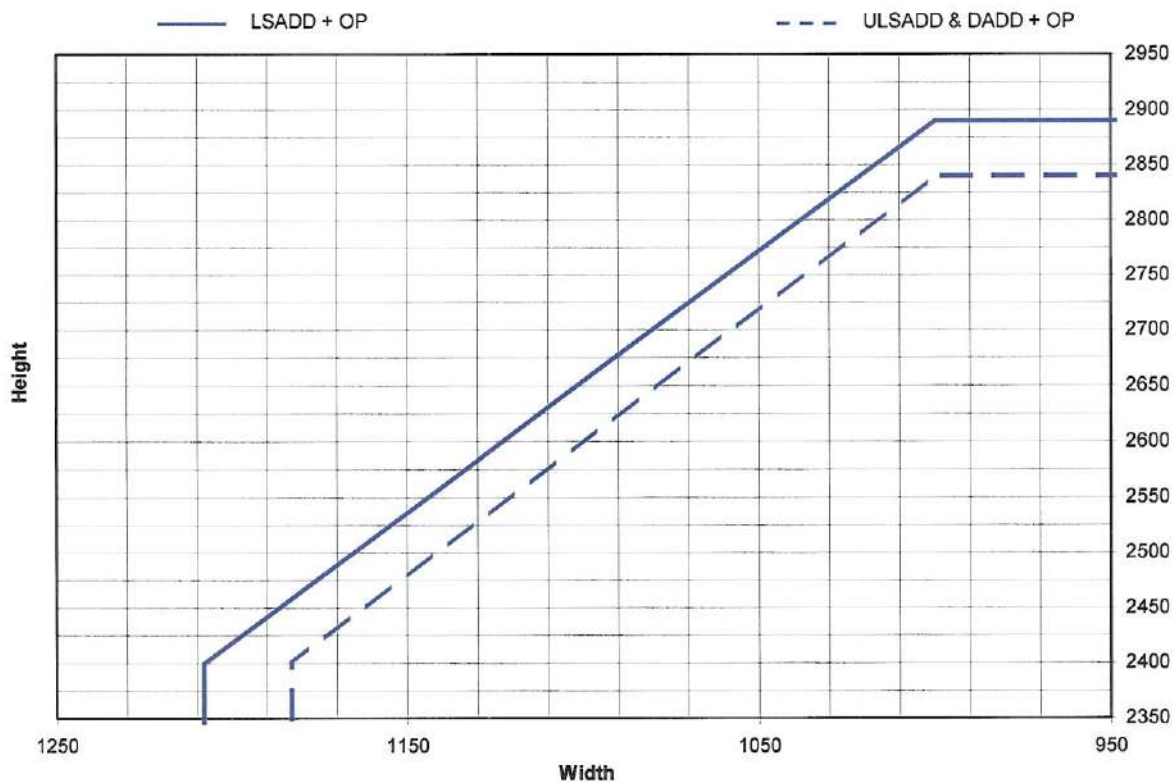
**MEETING EDGES:** 2 No. 10 x 4mm centrally fitted and spaced 10mm apart in one leaf only

**JAMBS:** 2 No. 10 x 4mm centrally fitted and spaced 10mm apart in each leaf or frame reveal.

##### HARDWARE:

For additional hardware protection see section 10

**Maximum door leaf size**



*The legal validity of this report can only be claimed on presentation of the complete report.*