



CERTIFICATE OF APPROVAL

No CF 348

This is to certify that, in accordance with
TS00 General Requirements for Certification of Fire Protection Products
The undermentioned products of

PYROPLEX LIMITED

The Furlong, Droitwich, Worcestershire, WR9 9BG
Tel: 01905 795432 Fax: 01905 795757
Web site: www.pyroplex.com

Have been assessed against the requirements of the Technical Schedule(s)
denoted below and are approved for use subject to the conditions
appended hereto:

CERTIFIED PRODUCT

Pyroplex 30 minute glazing
Systems:

Fire rated glazed apertures in
fire resistant timber doorsets
and timber screens

TECHNICAL SCHEDULE

TS25 Fire Resistant Glass,
Glazing Systems and Materials

Signed and sealed for and on behalf of Warringtonfire Testing and Certification Limited

Paul Duggan
Certification Manager

Issued: 23rd March 2004
Revised: 21st April 2022
Valid to: 16th December 2024





CERTIFICATE No CF 348

PYROPLEX LIMITED

This certification is provided to the client for their own purposes and we cannot opine on whether it will be accepted by Building Control authorities or any other third parties for any purpose.

PYROPLEX 'R8193, R30049, R30167, R30054, R8492 and FS30' GLAZING SYSTEMS

This Certificate of Approval relates to the contribution to fire resistance of the Pyroplex 'R8193 R30049, R30167, R30054 & R8492' Glazing Systems and when used in timber door leaves and 'FS30' Glazing System when used in timber screens, for periods of 30 minutes integrity, as defined in BS 476: Part 22: 1987 subject to the undermentioned conditions.

This product is approved on the basis of:

- Initial type testing
- A design appraisal against TS25
- Registration to ISO 9001: 2008
- Inspection and surveillance of factory production control.
- Audit Testing in accordance with TS25

This Certificate of Approval must be read in conjunction with CERTIFIRE Technical Schedule TS25, Fire Resistant Glass, Glazing Systems and materials.

Pyroplex 30 minute glazing systems R8193, R30049, R30167, R30054 and R8492 glazing systems require the following essential elements;

- Pyroplex glazing system seal
- Beading system
- Retaining method
- Aperture lining system (not required for all variants)
- Fire resistant timber doorset

The systems are used at the perimeter of a pane of fire resisting glass to provide an effective seal between the glass and substrate within a door leaf.

The Pyroplex 'R30049, R30167, & R30054' seals are available in a range of colours listed below:

Black, Brown, Cream and White

Signed Page 2 of 14
E/043

Issued: 23rd March 2004
Revised: 21st April 2022
Valid to: 16th December 2024



CERTIFICATE No CF 348

PYROPLEX LIMITED

PYROPLEX 'R8193, R30049, R30167, R30054, R8492 and FS30' GLAZING SYSTEMS

Pyroplex 'FS30' Glazing System consists of the following essential elements:

- a) Pyroplex glass edge seals – product reference 'R30049' or R30167
- b) Hardwood or softwood retaining beads (25 mm wide x 15 mm high with 5° chamfer) of a specific design and minimum density 520 kg/m³
- c) 40 mm long by 4 mm diameter steel screw fixings or 50 mm long by 1.8 mm diameter pin fixings via the retaining beads at 150 mm centres

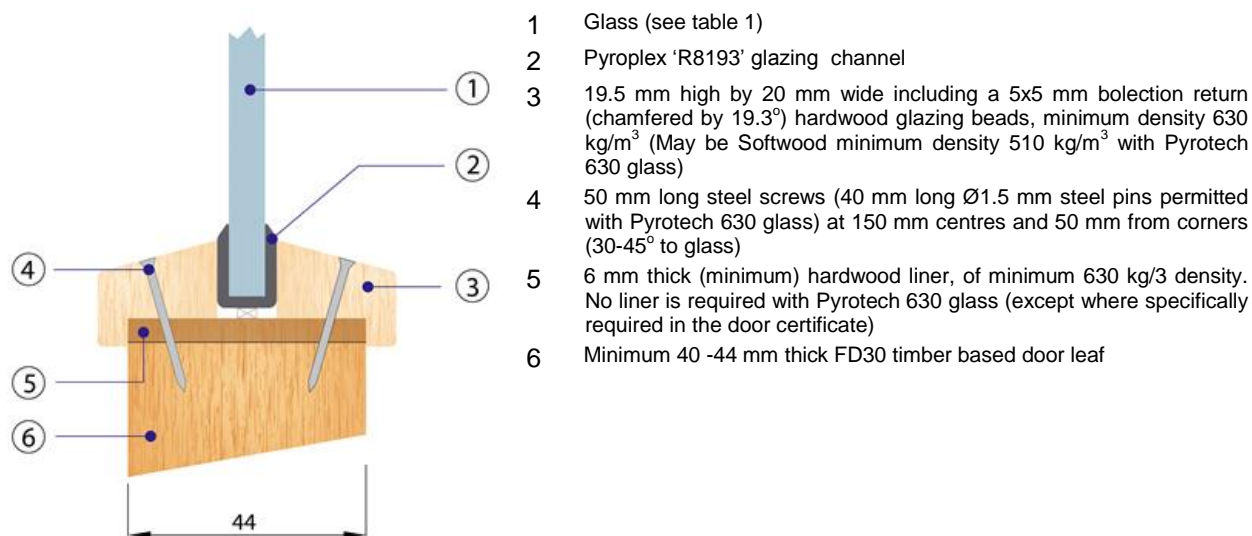
Signed Page 3 of 14
E/043

Issued: 23rd March 2004
Revised: 21st April 2022
Valid to: 16th December 2024

CERTIFICATE No CF 348 PYROPLEX LIMITED

PYROPLEX 'R8193' GLAZING SYSTEM

The figures below show the relevant dimensions of the 'R8193' Glazing channel and basic glazing details:



- 1 Glass (see table 1)
- 2 Pyroplex 'R8193' glazing channel
- 3 19.5 mm high by 20 mm wide including a 5x5 mm bolection return (chamfered by 19.3°) hardwood glazing beads, minimum density 630 kg/m³ (May be Softwood minimum density 510 kg/m³ with Pyrotech 630 glass)
- 4 50 mm long steel screws (40 mm long Ø1.5 mm steel pins permitted with Pyrotech 630 glass) at 150 mm centres and 50 mm from corners (30-45° to glass)
- 5 6 mm thick (minimum) hardwood liner, of minimum 630 kg/3 density. No liner is required with Pyrotech 630 glass (except where specifically required in the door certificate)
- 6 Minimum 40 -44 mm thick FD30 timber based door leaf

This Certificate of Approval relates to the following glasses when used in conjunction with a 'R8193' Glazing System at the maximum sizes shown in Table 1 below:

Glass	Maximum Aperture Height	Maximum Aperture Width	Maximum Aperture Area
Pyroshield Safety	600 mm (at 600 mm wide)	600 mm (at 600 mm high)	0.36 m ²
Pyrostem	600 mm (at 600 mm wide)	600 mm (at 600 mm high)	0.36 m ²
Pyrodur Plus	600 mm (at 600 mm wide)	600 mm (at 600 mm high)	0.36 m ²
Pyroguard C/W	600 mm (at 600 mm wide)	600 mm (at 600 mm high)	0.36 m ²
Pyrotech 630*	1680 mm (at 450 mm wide)	540 mm (at 1400 mm high)	0.76 m ²

* This glass requires that the expansion allowance shall be a minimum of 1 mm per 150 mm glass length (both vertical and horizontal) or if in doubt, minimum 5 mm to all edges (10 mm to head if expansion is not possible at the bottom edge). The edge cover to each pane shall be 10 mm

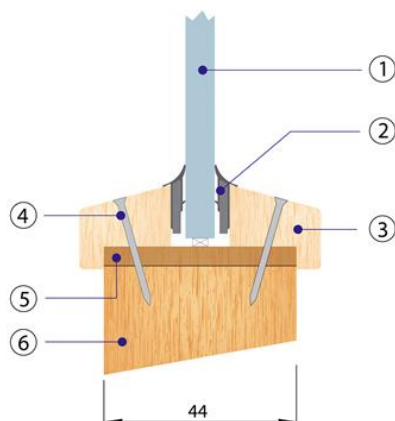
Signed Page 4 of 14
E/043

Issued: 23rd March 2004
Revised: 21st April 2022
Valid to: 16th December 2024

CERTIFICATE No CF 348 PYROPLEX LIMITED

PYROPLEX 'R30049' and R30167 GLAZING SYSTEMS

The figures below show the relevant dimensions of the 'R30049' and 'R30167' Glazing gasket and basic glazing details:



- 1 Glass (see table 2)
- 2 Pyroplex 'R30049' or 'R30167' glazing gasket
- 3 19.5 mm high by 20 mm wide including a 5x5 mm bolection return (chamfered by 19.3°) hardwood glazing beads, minimum density 630 kg/m³ (May be Softwood minimum density 510 kg/m³ with Pyrotech 630 glass)
- 4 36 mm long steel screws (40 mm long Ø1.5 mm steel pins permitted with Pyrotech 630 glass) at 150 mm centres and 50 mm from corners (30-45° to glass)
- 5 6 mm thick (minimum) hardwood liner, of minimum 630 kg/3 density. No liner is required with Pyrotech 630 glass (except where specifically required in the door certificate)
- 6 Minimum 40 - 44 mm thick FD30 timber based door leaf

Note: Drawing details the R30049 gasket.

This Certificate of Approval relates to the following glasses when used in conjunction with a 'R30049' or 'R30167' Glazing System at the maximum sizes shown in Table 2 below:

Table 2. Acceptable Glass Dimensions

Glass	Maximum Aperture Height	Maximum Aperture Width	Maximum Aperture Area
Pyroshield Safety	1887 mm (at 355 mm wide)	750 mm (at 893 mm high)	0.67 m ²
Pyrostem	1550 mm (at 290 mm wide)	750 mm (at 600 mm high)	0.45 m ²
Pilkingtons Pyroclear	1473 mm (at 343 mm wide)	398 mm (at 893 mm high)	0.50 m ²
Pyrodur Plus	1550 mm (at 290 mm wide)	750 mm (at 600 mm high)	0.45 m ²
Pyrobelite 7 or 7EG	1550 mm (at 290 mm wide)	750 mm (at 600 mm high)	0.45 m ²
Pyroguard C/W	750 mm (at 750 mm wide)	750 mm (at 750 mm high)	0.56 m ²
Pyrotech 630*	1680 mm (at 450 mm wide)	540 mm (at 1400 mm high)	0.76 m ²

* This glass requires that the expansion allowance shall be a minimum of 1 mm per 150 mm glass length (both vertical and horizontal) or if in doubt, minimum 5 mm to all edges (10 mm to head if expansion is not possible at the bottom edge). The edge cover to each pane shall be 10 mm.

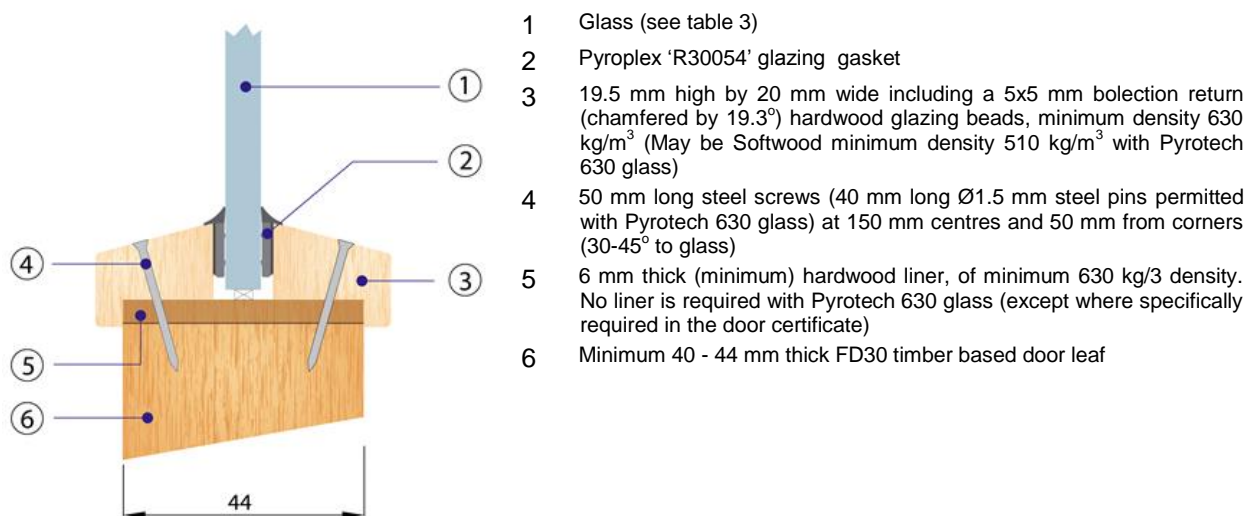
Signed Page 5 of 14
E/043

Issued: 23rd March 2004
Revised: 21st April 2022
Valid to: 16th December 2024

CERTIFICATE No CF 348 PYROPLEX LIMITED

PYROPLEX 'R30054' GLAZING SYSTEM

The figures below show the relevant dimensions of the 'R30054' Glazing Gasket and basic glazing details:



- 1 Glass (see table 3)
- 2 Pyroplex 'R30054' glazing gasket
- 3 19.5 mm high by 20 mm wide including a 5x5 mm bolection return (chamfered by 19.3°) hardwood glazing beads, minimum density 630 kg/m³ (May be Softwood minimum density 510 kg/m³ with Pyrotech 630 glass)
- 4 50 mm long steel screws (40 mm long Ø1.5 mm steel pins permitted with Pyrotech 630 glass) at 150 mm centres and 50 mm from corners (30-45° to glass)
- 5 6 mm thick (minimum) hardwood liner, of minimum 630 kg/3 density. No liner is required with Pyrotech 630 glass (except where specifically required in the door certificate)
- 6 Minimum 40 - 44 mm thick FD30 timber based door leaf

This Certificate of Approval relates to the following glasses when used in conjunction with a 'R30054' Glazing System at the maximum sizes shown in Table 3 below.

Glass	Maximum Aperture Height	Maximum Aperture Width	Maximum Aperture Area
Pyrodur Plus	750 mm (at 750 mm wide)	750 mm (at 750 mm high)	0.56 m ²
Pyroguard C/W	750 mm (at 750 mm wide)	750 mm (at 750 mm high)	0.56 m ²
Pyrotech 630*	1680 mm (at 450 mm wide)	540 mm (at 1400 mm high)	0.76 m ²

* This glass requires that the expansion allowance shall be a minimum of 1 mm per 150 mm glass length (both vertical and horizontal) or if in doubt, minimum 5 mm to all edges (10 mm to head if expansion is not possible at the bottom edge). The edge cover to each pane shall be 10 mm.

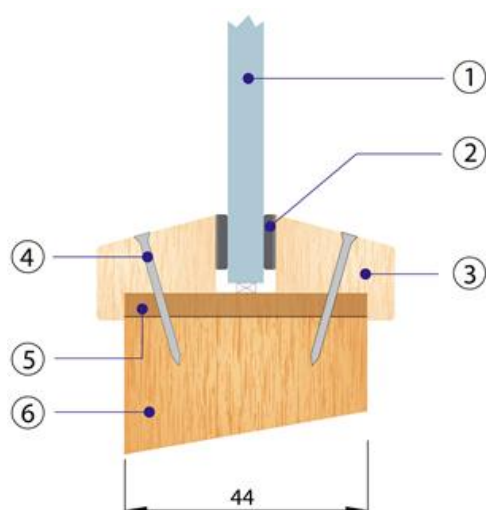
Signed Page 6 of 14
E/043

Issued: 23rd March 2004
Revised: 21st April 2022
Valid to: 16th December 2024

CERTIFICATE No CF 348 PYROPLEX LIMITED

PYROPLEX 'R8492' GLAZING SYSTEM

The figures below show the relevant dimensions of the 'R8492' Glazing Seal and basic glazing details:



- 1 Glass (see table 4)
- 2 Pyroplex 'R8492' glazing seal
- 3 19.5 mm high by 20 mm wide including a 5x5 mm bolection return (chamfered by 19.3°) hardwood glazing beads, minimum density 630 kg/m³ (May be Softwood minimum density 510 kg/m³ with Pyrotech 630 glass)
- 4 45 mm long steel screws (40 mm long Ø1.5 mm steel pins permitted with Pyrotech 630 glass) at 150 mm centres and 50 mm from corners (30-45° to glass)
- 5 6 mm thick (minimum) hardwood liner, of minimum 630 kg/3 density. No liner is required with Pyrotech 630 glass (except where specifically required in the door certificate)
- 6 Minimum 40mm – 44 mm thick FD30 timber based door leaf

This Certificate of Approval relates to the following glasses when used in conjunction with a 'R8492' Glazing System at the maximum sizes shown in Table 4 below:

Table 4. Acceptable Glass Dimensions

Glass	Maximum Aperture Height	Maximum Aperture Width	Maximum Aperture Area
Pyroshield Safety	403 mm (at 626 mm wide)	626 mm (at 403 mm high)	0.25 m ²
Pyrostem	403 mm (at 626 mm wide)	626 mm (at 403 mm high)	0.25 m ²
Pyrodur Plus	403 mm (at 626 mm wide)	626 mm (at 403 mm high)	0.25 m ²
Pyroguard C/W	403 mm (at 626 mm wide)	626 mm (at 403 mm high)	0.25 m ²
Pyrotech 630*	1680 mm (at 450 mm wide)	540 mm (at 1400 mm high)	0.76 m ²

* This glass requires that the expansion allowance shall be a minimum of 1 mm per 150 mm glass length (both vertical and horizontal) or if in doubt, minimum 5 mm to all edges (10 mm to head if expansion is not possible at the bottom edge). The edge cover to each pane shall be 10 mm.

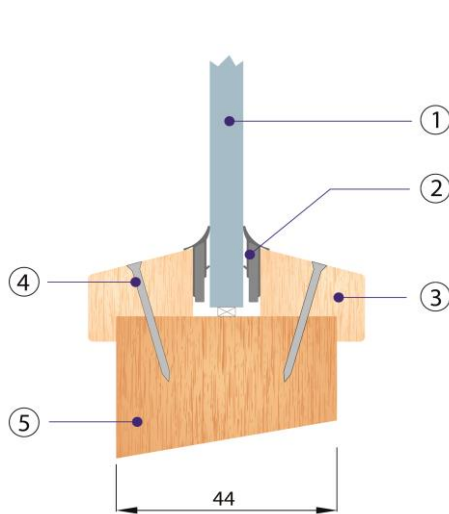
Signed Page 7 of 14
E/043

Issued: 23rd March 2004
Revised: 21st April 2022
Valid to: 16th December 2024

CERTIFICATE No CF 348 PYROPLEX LIMITED

PYROPLEX 'R30049' and 'R30167' GLAZING SYSTEMS (UNLINED OPTION)

The figure below shows the relevant dimensions of the 'R30049' and 'R30167' Glazing gasket and basic glazing details when used in unlined door leaf apertures:



- 1 Glass (see table 5)
- 2 Pyroplex 'R30049' or 'R30167' glazing gasket
- 3 25 mm high by 22 mm wide including a 5x5 mm bolection return (chamfered by 15°) hardwood glazing beads, minimum density 640 kg/m³
- 4 40 mm long Ø1.5 mm steel pins at 150 mm centres and 50 mm from corners (30-45° to glass)
- 5 Minimum 40 mm – 44mm thick FD30 timber based door leaf (solid core doors only)

Note: Drawing details the R30049 gasket.

This Certificate of Approval relates to the following glasses when used in conjunction with a 'R30049' or a 'R30167' Glazing System at the maximum sizes shown in Table 5 below:

Table 5. Acceptable Glass Dimensions			
Glass	Maximum Aperture Height	Maximum Aperture Width	Maximum Aperture Area
Pilkingtons Pyroclear	1473 mm (at 343 mm wide)	398 mm (at 893 mm high)	0.50 m ²

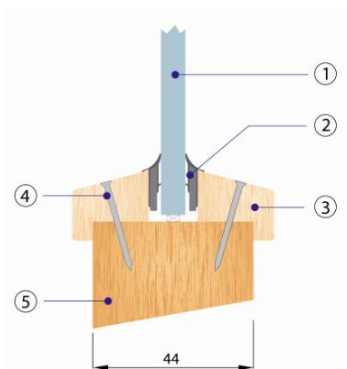
Signed Page 8 of 14
E/043

Issued: 23rd March 2004
Revised: 21st April 2022
Valid to: 16th December 2024

CERTIFICATE No CF 348 PYROPLEX LIMITED

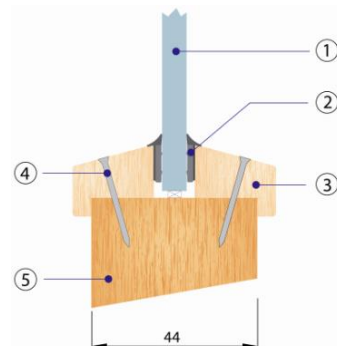
PYROPLEX 'R30049, R30167, R30054 & R8492' GLAZING SYSTEMS (UNLINED APERTURE OPTION)

The figures below show the relevant dimensions of the 'R30049, R30167, R30054 & R8492' Glazing gasket and basic glazing details when used in unlined door leaf apertures:

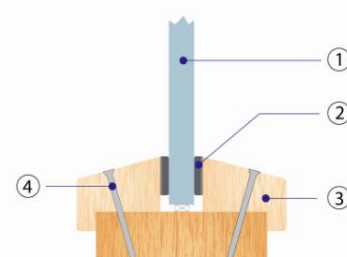


- 1 Glass (see table 6)
- 2 Pyroplex R30049 or R30167 glazing gasket
- 3 18 mm high by 18 mm wide including a 5x5 mm bolection return (chamfered by 11°) hardwood glazing beads, minimum density 640 kg/m³
- 4 50 mm long Ø1.5 mm steel pins at 140 mm centres and 50 mm from corners (45° to glass)
- 5 Minimum 40 mm - 44mm thick FD30 timber based door leaf (solid core doors only)

Note: Drawing details the R30049 gasket.



- 1 Glass (see table 6)
- 2 Pyroplex R30054 glazing gasket
- 3 18 mm high by 18 mm wide including a 5x5 mm bolection return (chamfered by 11°) hardwood glazing beads, minimum density 640 kg/m³
- 4 50 mm long Ø1.5 mm steel pins at 140 mm centres and 50 mm from corners (45° to glass)
- 5 Minimum 40 mm - 44mm thick FD30 timber based door leaf (solid core doors only)



- 1 Glass (see table 6)
- 2 Pyroplex R8492 glazing seal
- 3 18 mm high by 18 mm wide including a 5x5 mm bolection return (chamfered by 11°) hardwood glazing beads, minimum density 640 kg/m³
- 4 50 mm long Ø1.5 mm steel pins at 140 mm centres and 50 mm from corners (45° to glass)
- 5 Minimum 40 mm - 44mm thick FD30 timber based door leaf (solid core doors only)

Signed Page 9 of 14
E/043

Issued: 23rd March 2004
Revised: 21st April 2022
Valid to: 16th December 2024



CERTIFICATE No CF 348
PYROPLEX LIMITED

This Certificate of Approval relates to the following glasses when used in conjunction with a 'R30049, R30167, R30054 or R8492' Glazing System at the maximum sizes shown in Table 6 below:

Table 6. Acceptable Glass Dimensions			
Glass	Maximum Aperture Height	Maximum Aperture Width	Maximum Aperture Area
CERTIFIRE Approved 15 mm Fully Insulated Glass*	880 mm (at 550 mm wide)	605 mm (at 800 mm high)	0.48 m ²

*Note: Care must be taken to ensure glass is CERTIFIRE approved for use in timber doorsets at the dimensions required.

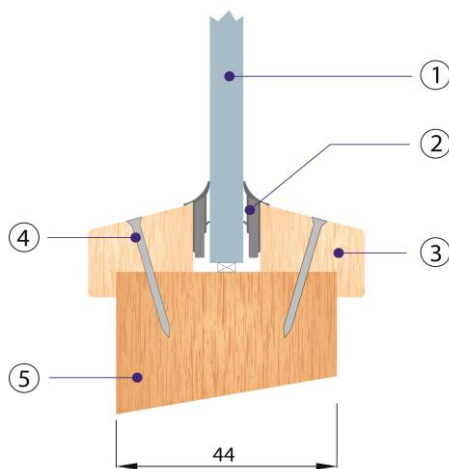
Signed Page 10 of 14
E/043

Issued: 23rd March 2004
Revised: 21st April 2022
Valid to: 16th December 2024

CERTIFICATE No CF 348 PYROPLEX LIMITED

PYROPLEX 'R30049' and 'R30167' GLAZING SYSTEMS (UNLINED OPTION)

The figure below shows the relevant dimensions of the 'R30049' and 'R30167' Glazing Gasket and basic glazing details when used in unlined door leaf apertures:



- 1 Glass (see table 7)
- 2 Pyroplex 'R30049' or 'R30167' glazing gasket
- 3 20 mm high by 20 mm wide including a 5x5 mm bolection return (chamfered by 11°) hardwood glazing beads, minimum density 650 kg/m³
- 4 50 mm long Ø1.5 mm steel pins at 150 mm centres and 50 mm from corners (30-45° to glass)
- 5 Minimum 40 mm thick FD30 timber based door leaf (solid core doors only)

Note: Drawing details the R30049 gasket.

This Certificate of Approval relates to the following glasses when used in conjunction with a 'R30049' or 'R30167' Glazing System at the maximum sizes shown in Table 7 below:

Table 7. Acceptable Glass Dimensions			
Glass	Maximum Aperture Height	Maximum Aperture Width	Maximum Aperture Area
CERTIFIRE Approved 7-12 mm Partially Insulated Glass*	876 mm (at 526 mm wide)	658 mm (at 701 mm high)	0.46 m ²

*Note: Care must be taken to ensure glass is CERTIFIRE approved for use in timber doorsets at the dimensions required.

Signed Page 11 of 14
E/043

Issued: 23rd March 2004
Revised: 21st April 2022
Valid to: 16th December 2024

CERTIFICATE No CF 348 PYROPLEX LIMITED

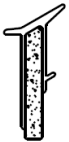



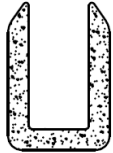
PYROPLEX 'R8193, R30049, R30167, R30054 & R8492' GLAZING SYSTEMS

This Certificate of Approval relates to timber based door leaf constructions consisting of timber faces coupled with timber or other cellulosic cores of not less than 40 mm overall leaf thickness.

The 'R8193, R30049, R30167, R30054 & R8492' Glazing Systems may be fitted in the manner described in this Certificate of Approval, to previously tested door leaves provided that the particular aspects of the door assembly are maintained. These are described below but are not exhaustive:

1. The doorset, including door frame and associated building hardware, should have achieved at least 30 minutes integrity when tested or subsequently assessed by one of the laboratories approved by CERTIFIRE as acceptable for this purpose to BS 476: Part 22: 1987.
2. If the proposed doorset is to be used in double-leaf configuration, the test or assessment evidence should be applicable to double-leaf configurations.
3. Likewise, if the proposed doorset is to be used in the unlatched configuration the available evidence should be applicable to unlatched doorsets.
4. The proposed doorset should also have included a glazed aperture or apertures of the intended size, shape, area and number.
5. When used to glaze CERTIFIRE approved doorsets which have smaller apertures than allowed in this certificate, the aperture sizes specified in the doorset certificate shall take precedence.

If glazed in this way the proposed installation of the PYROPLEX 'R8193, R30049, R30167, R30054, R8492 & FS30' GLAZING SYSTEMS are not expected to affect the fire resistance performance of the leaf.

Pyroplex 30 Minute Glazing Systems CF348				
R30049	R30167	R30054	R8492	R8193
				

Signed Page 12 of 14
E/043



Issued: 23rd March 2004
Revised: 21st April 2022
Valid to: 16th December 2024

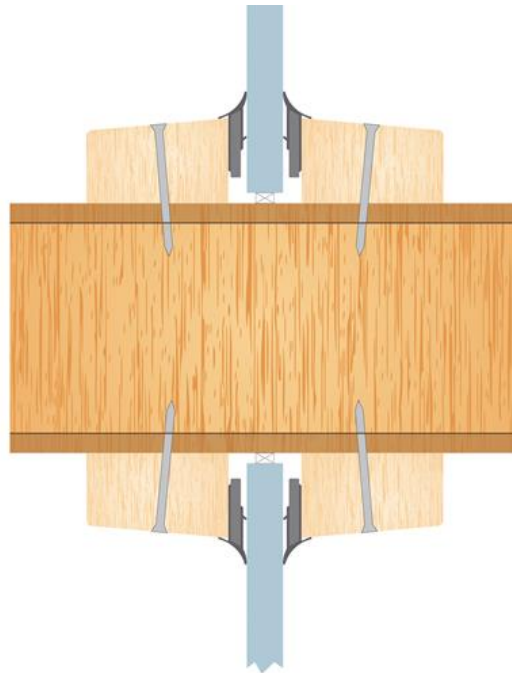
CERTIFICATE No CF 348 PYROPLEX LIMITED

PYROPLEX FS30' 30 MINUTE GLAZED SCREEN SYSTEM

The diagram below shows the relevant dimensions of the frame with a 'R30049' or 'R30167' Glazing Gasket installed and basic glazing details:

The glass shall be glazed within a timber framed screen (the framing members of which should be a minimum section size of 90 mm by 44 mm) utilising the following basic specification:

Figure 1. Cross-Section through Glazing System



Pyroplex 'FS30' Glazing System consists of the following essential elements:

- Pyroplex glass edge seals – product reference 'R30049' or 'R30167'
- Hardwood or softwood retaining beads (25 mm wide x 15 mm high with 5° chamfer) of a specific design and minimum density 520 kg/m³
- 40 mm long by 4 mm diameter steel screw fixings or 50 mm long by 1.8 mm diameter pin fixings via the retaining beads at 150 mm centres

Signed Page 13 of 14
E/043

Issued: 23rd March 2004
Revised: 21st April 2022
Valid to: 16th December 2024

CERTIFICATE No CF 348 PYROPLEX LIMITED

'PYROPLEX FS30' 30 MINUTE GLAZED SCREEN SYSTEM

This Certificate of Approval relates to the following glasses when used in conjunction with the 'R30049' or 'R30167' Glazing System for a fire resistance performance of 30 minutes integrity at the maximum sizes shown in Table 8 and Figure 1 below:

Table 8. Acceptable Glass Dimensions			
Glass	Maximum Aperture Height	Maximum Aperture Width	Maximum Aperture Area
Pyroshield or Pyran S	1125 mm (at 1924 mm wide)	2405 mm (at 900 mm high)	2.16 m ²
	or		
	2455 mm (at 940 mm wide)	1175 mm (at 1964 mm high)	2.30 m ²
Pyrobelite, Pyrodur, Pyroguard, Pyrostem,	Maximum approved glass height, width and area will be as specified above or as specified by the relevant CERTIFIRE approval relating to the glass. Note that the approval relating to glass dimensions for the various glass types may be smaller than those given above.		

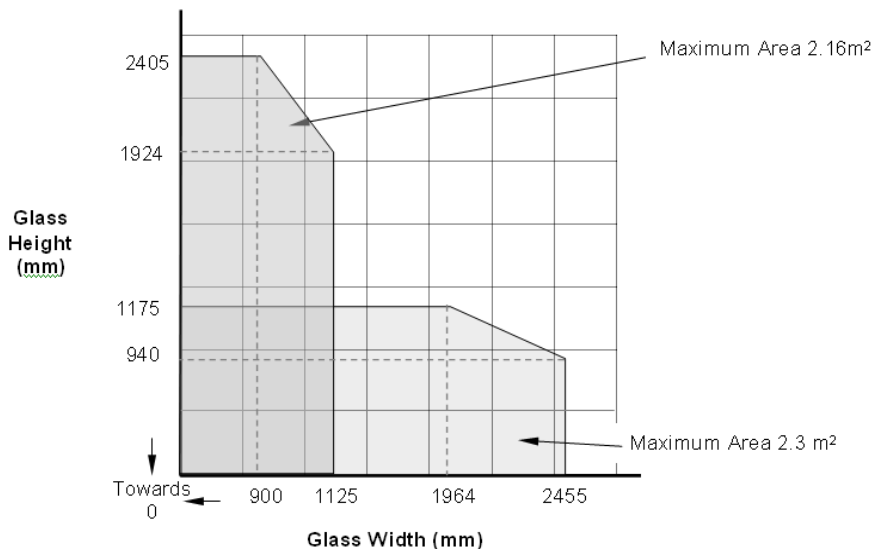


Figure 1. Acceptable Glass Dimensions

* Aperture dimensions shall fall within shaded area as detailed above.

Signed Page 14 of 14
E/043

Issued: 23rd March 2004
Revised: 21st April 2022
Valid to: 16th December 2024