

Fire Rated Glazing System Guide



FIRE RATED GLAZING SYSTEM GUIDE

Issue: 27-03-07

Introduction

Pyropanel Developments are specialists in fire rated glazing solutions, and our systems are designed for easy installation into new projects, refurbished buildings and existing walls. In addition to regular non insulated Georgian and Pyroceram™ non insulated systems, Pyropanel also offer a number of certified solutions incorporating Pilkington Pyrostop™ and Pyrodur™ fire rated glass. Pilkington Pyrostop™ and Pyrodur™ are arguably the best fire rated glass products available in Australia, offering superior safety, longevity and visual transparency for both insulated and non insulated applications. All Pilkington Pyrostop™ and Pyrodur™ products have an impact rating to AS2208.

As part of the certified solution, Pyropanel uses a European designed insulated steel element that can be used to support glass panels in both doors and fixed windows. Available for internal and external applications, there are a variety of profiles designed to suit most glazing applications and classifications under the Building Code of Australia, and all products are certified to the relevant Australian Standard. Pyropanel also offer a range of timber fire windows that achieve a -/60/30 rating, and timber fire doors that can incorporate either half or full light glazed elements incorporating Pilkington Pyrostop™ for a rating of -/60/30.

Models available

Model	FRL	Leaf Thickness	Facing	Frame material	Maximum Leaf size - Single (mm)	Maximum Leaf size - Pair (mm)	Tech Sheet
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Glass Fire doors

PG1FD060-54	-/60/30	54mm	Timber with 1/2 glass	Timber or steel	2400 x 1200	N/A	FD-05 (fire door section)
PG2FD060-54	-/60/30	54mm	Timber with full glass	Timber or steel	2400 x 1200	N/A	FD-05 (fire door section)
PG3FD060-65	-/60/30	65mm	Steel with full glass	Integrated steel	2400 x 1100	2400 x 1100 / 1100	FD-06 (fire door section)
PGSD30S	-/30/-	65mm	Steel with full glass	Integrated Steel	Sliding glass fire door - 2700 x 1405		FD-09 (Fire door section)

Fire Windows

Model	FRL	Glass thickness	Glass type	Frame material	Grade A impact rating?	Max overall frame size (approx)	Tech Sheet
PFWS-GW60/-	-/60/-	6mm	Georgian wired	Steel	No	1200 x 1130	FW-01
PFWS-PC240/-	-/240/-	5mm	Pyroceram	Steel	No	1640 x 970	FW-02
PFWS-PD60/-	-/60/-	13mm	Pyrodur™	Steel	Yes	2900 x 1400	FW-03
PFWS-PS60/60	-/60/60	23 or 27mm	Pyrostop™	Steel	Yes	2865 x 1465	FW-04
PFWS-PS60/30	-/60/30	18mm	Pyrostop™	Steel	Yes	2400 x 1200	FW-04
PFWS-PS90/90	-/90/90	47mm	Pyrostop™	Steel	Yes	2400 x 1415	FD-05
PFWS-PS120/120	-/120/120	52 or 56mm	Pyrostop™	Steel	Yes	2400 x 1415	FD-06
PFWT-PS60/30	-/60/30	18mm	Pyrostop™	Pyropanel® fire rated timber	Yes	2860 x 1200	FD-07

Certification

For compliance to Australian Standards, all fire rated solutions must be independently certified by an approved testing laboratory and form part of a certified system. All Pyropanel Fire Rated glass door and window systems are fully tested certified to AS1530.4, and are supplied as a complete package including frame and glass, and are either factory fitted or fitted on site depending on the project specifics.

Applications

Pyropanel Fire Rated Glass doors and windows are ideal for applications where natural light needs to be retained and where visual sighting is important, but where the fire rating of the building element must also be retained. Typical installations such as doors and windows in stair wells increase their attractiveness and hence usability while providing both a socially safe and fire safe environment for occupants. Other uses are common, such as in heritage buildings where the use of unsightly sprinklers is not desirable, hospitals, schools and nursing homes where visual sighting is important, and of course all applications under the building code of Australia that require the use of fire rated glazing solutions.

Pyropanel fire rated glass doors and windows open up a world of design opportunities for creating visually appealing buildings that utilise the benefits of natural light and visibility, without compromising fire safety.



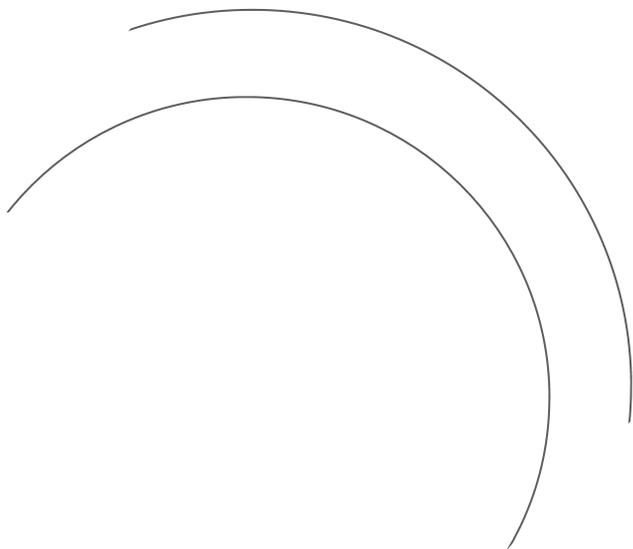
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Availability

All Pyropanel products are available throughout Australia and various other countries through a network of licensed manufacturers and distributors. For a current contact list, please contact Pyropanel Developments or visit our website at www.pyropanel.com.au.

[Pyropanel > Fire Doors > Smoke Doors > Life Safety Doors > Fire Rated Glazing > Passive Products > Special Purpose Doors](#)



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FIRE RATED GLAZING

Georgian wired -/60/- fire window

TECH SHEET: FW-01

Issue: 08-09-06

Fire rated window, -/60/-, using
Georgian wired glass in a steel frame

DESCRIPTION

Steel framed fire rated window providing one hour of integrity only protection, this budget priced system is a great solution for applications requiring certified fire resistance without the need for radiation protection, insulation protection, or the need for perfectly clear glass.

APPLICATIONS

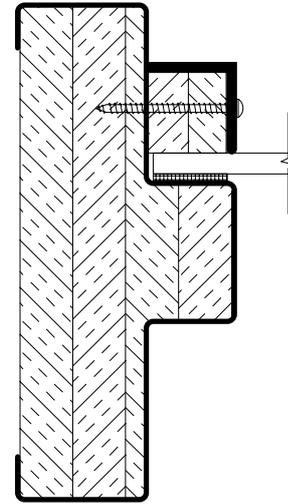
Car parks, factories and boundary walls, or wherever there is a need for integrity only protection without a requirement for protection against the spread of fire due to heat transfer. This glass does not provide any level of radiation protection and should not be used in an escape route or where occupants could be exposed to radiant heat.

FEATURES

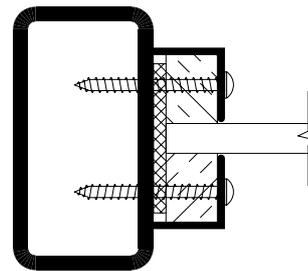
- Fully certified to Australian Standards
- -/60/- FRL
- 6mm Georgian wire clear glass (eg, Pilkington Pyroshield®) with 10mm squared wire reinforcement
- Pressed metal or RHS frame system
- Class B impact rating to AS1288 (not suitable for applications requiring class A safety glass)
- For use in 1hr timber and steel stud walls, all fire rated masonry walls, gypsum block walls, aerated concrete blocks and wall panels. *Refer to Pyropanel if your wall type is not listed.*
- All frames must be fully packed with Rockwool, Pyropanel FR board, Fire rated plaster, Mortar or concrete
- Single panes up to 1070 x 1000 visible
- Multi-lites with panes up to 1030 x 910 visible (total assembly size - max 2280 x 1040)
- Arched windows available

OPTIONAL EXTRAS

- Galvanised frames
- Stainless Steel frames
- Double glazing
- Mullions and transoms
- Obscure films



Standard pressed metal window profile



Alternative RHS window profile
(not recommended for external applications)

MODELS AVAILABLE

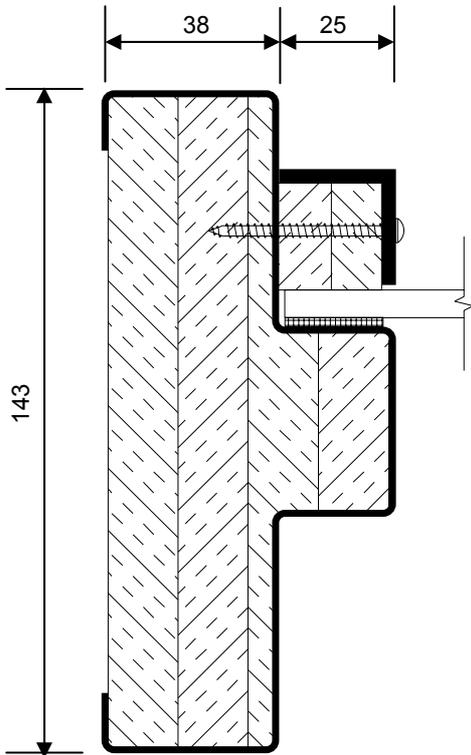
Model	FRL	Glass thickness	Max visible glass	Max overall frame size (approx)
PFWS-GW60/-	-/60/-	6mm	1070 x 1000	1200 x 1130

HOW TO SPECIFY

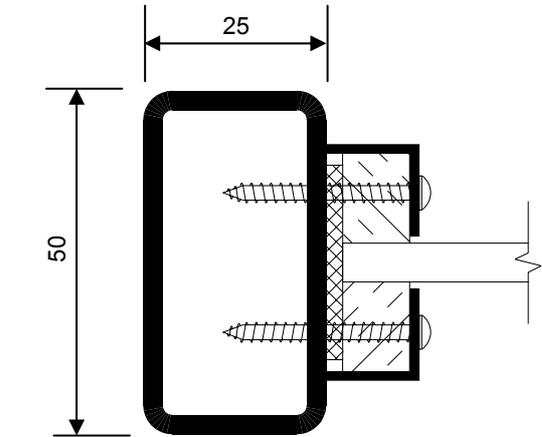
Eg, "Window to be a Pyropanel **PFWS-GW60/-** Certified -/60/- FRL fire window, incorporating 6mm Georgian wired glass, mounted in pressed metal window frame*, prime paint / powdercoat / galvanised / stainless steel* finish, (builder to fully pack frame as required)"

* denotes example - delete or change or specify as required

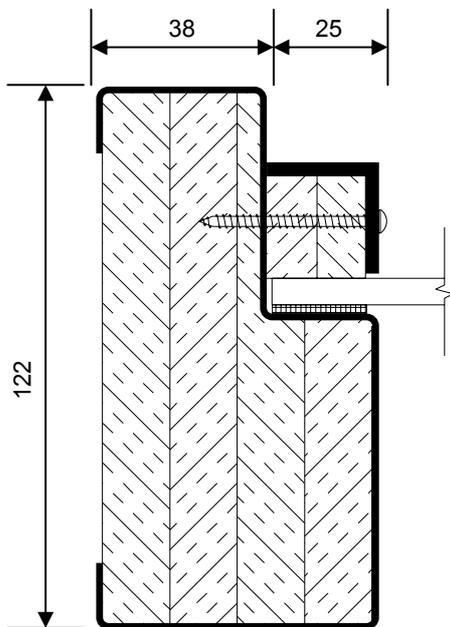
TYPICAL SECTIONS



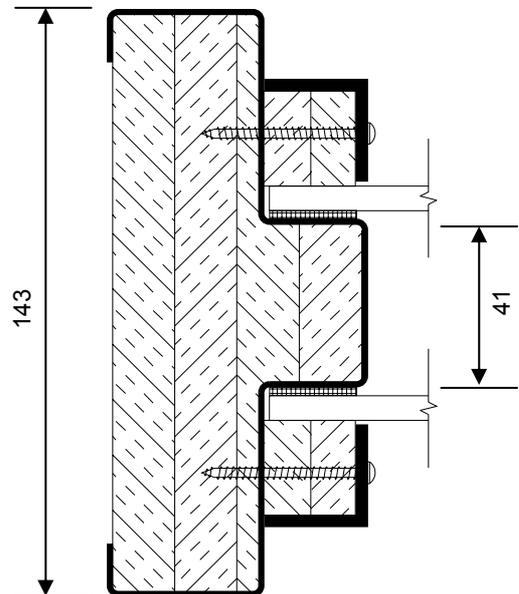
Pressed metal double rebated window frame



RHS window frame
 (not recommended for external applications)

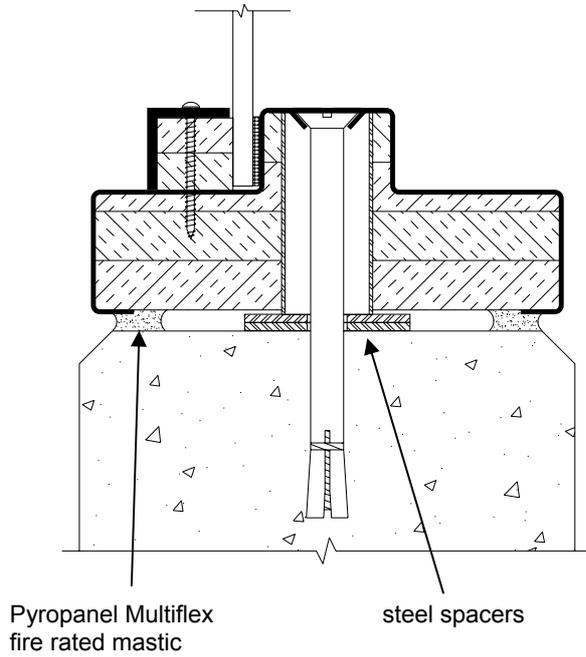


Pressed metal single rebated window frame

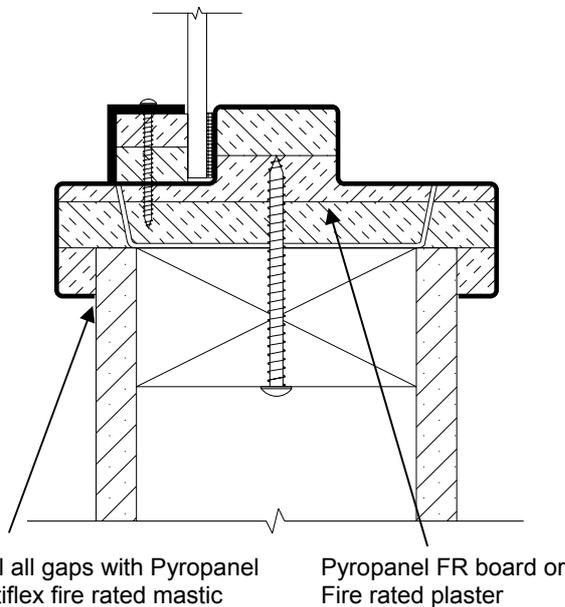


Pressed metal single rebated window frame with double glazing

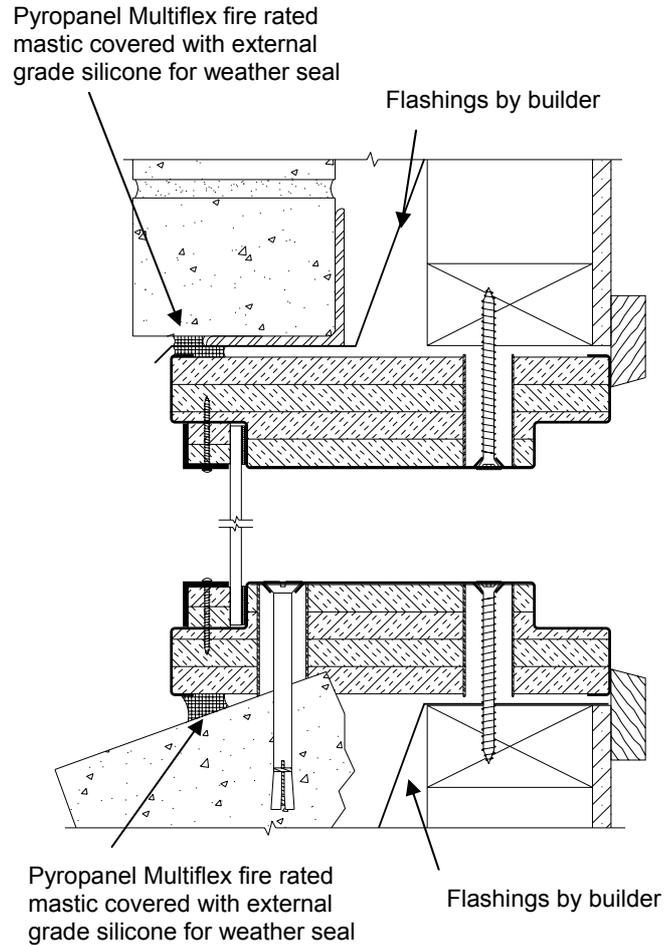
WALL ABUTMENTS AND BUILDING IN DETAILS



Typical wall fixing for masonry and pre-cast concrete walls



Typical wall fixing for masonry and pre-cast concrete walls



Ensure all gaps are tightly sealed with fire rated sealant, and that the frames are fully packed with Pyropanel FR board, Fire rated plaster, mortar or concrete. Back of window frame must abut fire rated element of wall (generally brick).

Suggested fixing detail for brick veneer applications

FIRE RATED GLAZING

Pyroceram -/240/- fire window

TECH SHEET: FW-02

Issue: 03-08-2010

Fire rated window, -/240/-, using Pyroceram glass in a steel frame

DESCRIPTION

Steel framed fire rated window providing up to four hours of integrity only protection, this system is a great solution for applications requiring certified fire resistance without the need for radiation protection, insulation protection, or the need for perfectly clear glass.

APPLICATIONS

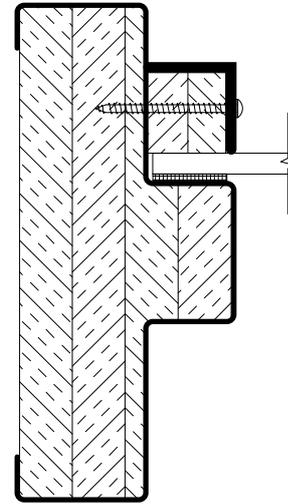
Car parks, factories and boundary walls, or wherever there is a need for integrity only protection without a requirement for protection against the spread of fire due to heat transfer. This glass does not provide any level of radiation protection and should not be used in an escape route or where occupants could be exposed to radiant heat.

FEATURES

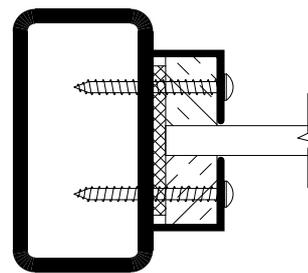
- Fully certified to Australian Standards
- -/60/-, -/120/-, -/240/- FRL depending on application and FRL of wall
- 5mm Pyroceram ceramic glass (slightly bronze colour in appearance)
- Pressed metal or RHS frame system
- NOTE: This glass has no impact rating to AS1288 (not suitable for applications requiring safety glass)
- For use in 1hr timber and steel stud walls, all fire rated masonry walls, gypsum block walls, aerated concrete blocks and wall panels. *Refer to Pyropanel if your wall type is not listed.*
- All frames must be fully packed with Rockwool, Pyropanel FR board, Fire rated plaster, Mortar or concrete
- Single panes up to 1510 x 840 visible
- Multi-lites with panes up to 1510 x 840 visible (total maximum assembly size
 - 3300mm (h) x 1560mm (w) or
 - 1560mm (h) x 2400mm (w)
- Arched windows available
- Tested and approved for use as side-lites and top-lites adjacent to Pyropanel fire doors (*note: no insulation protection provided*)

OPTIONAL EXTRAS

- Galvanised frames
- Stainless Steel frames
- Double glazing
- Impact rated film
- Obscure films



Standard pressed metal window profile



Alternative RHS window profile
(not recommended for external applications)

MODELS AVAILABLE

Model	FRL Up to:	Glass thickness	Max visible glass	Max overall frame size (approx)
PFWS-PC240/-	-/240/-	5mm	1510 x 840	1640 x 970

HOW TO SPECIFY

Eg, "Window to be a Pyropanel **PFWS-PC240/-** Certified -/240/- FRL* fire window, incorporating non impact rated 5mm Pyroceram glass, mounted in pressed metal window frame*, prime paint / powdercoat / stainless steel* finish, (builder to fully pack frame as required)"

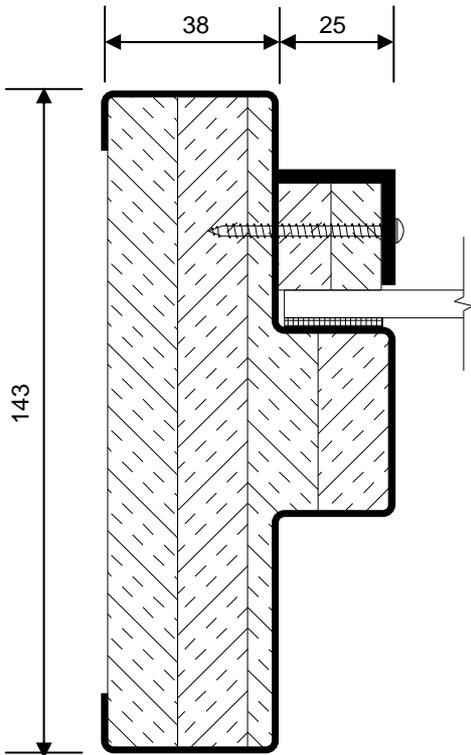
* denotes example - delete or change or specify as required



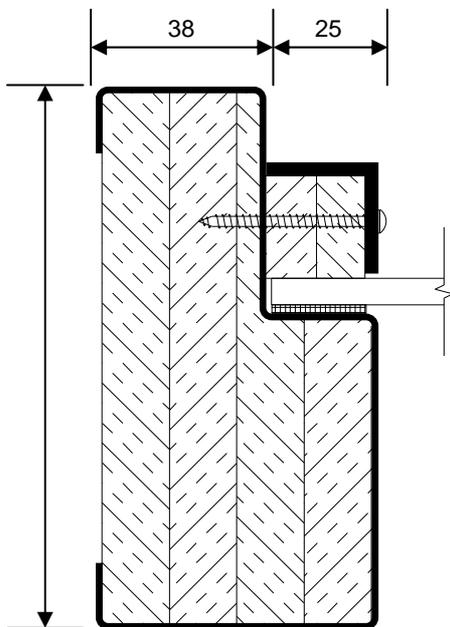
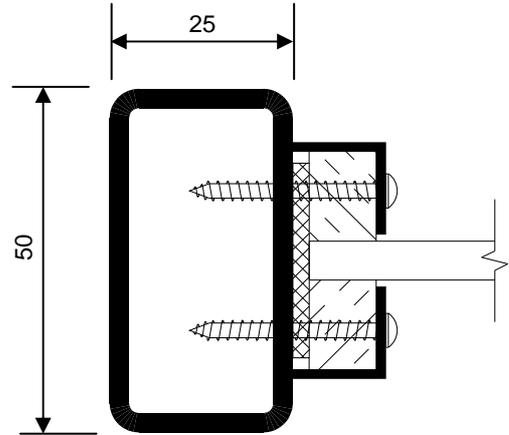
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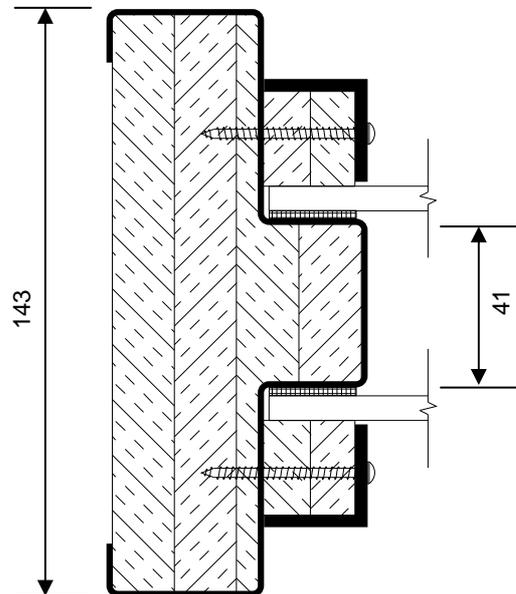
TYPICAL SECTIONS



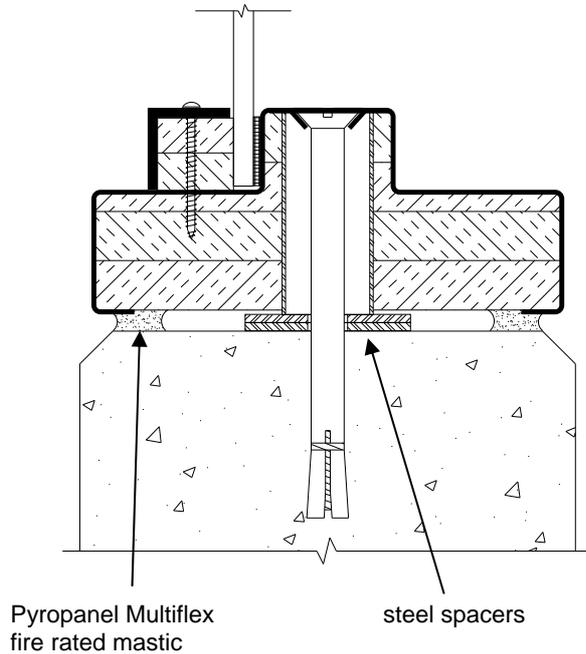
Pressed metal double rebated window frame



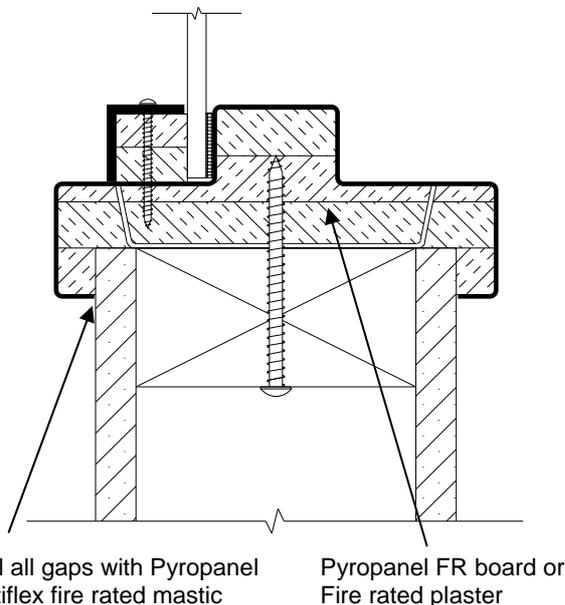
Pressed metal single rebated window frame



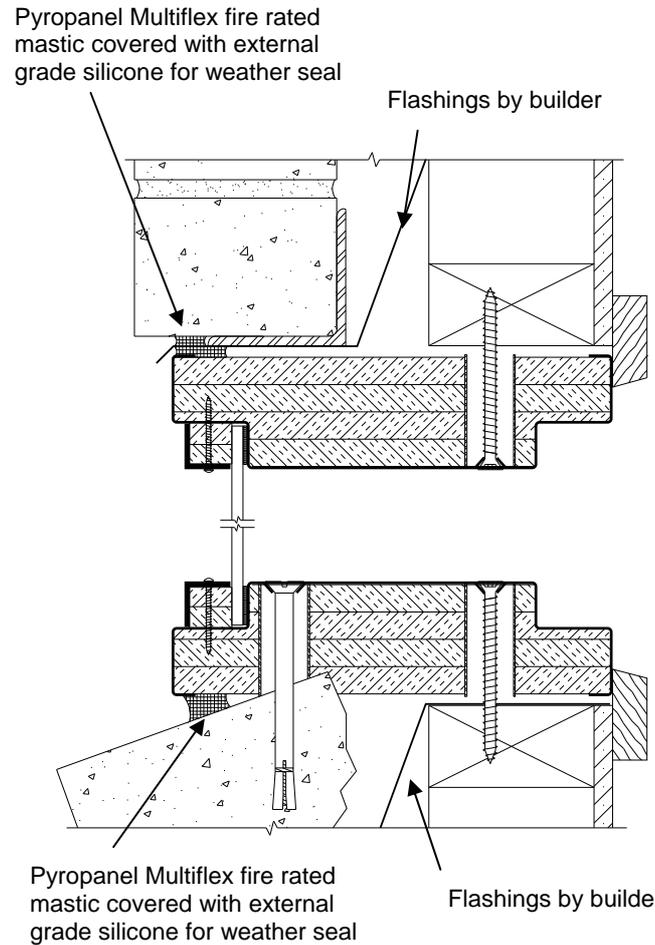
WALL ABUTMENTS AND BUILDING IN DETAILS



Typical wall fixing for masonry and pre-cast concrete walls



Typical wall fixing for masonry and pre-cast concrete walls



Ensure all gaps are tightly sealed with fire rated sealant, and that the frames are fully packed with Pyropanel FR board, Fire rated plaster, mortar or concrete. Back of window frame must abut fire rated element of wall (generally brick).

Suggested fixing detail for brick veneer applications (not tested).

FIRE RATED GLAZING

Pyrodur™ -/60/- fire window

TECH SHEET: FW-03

Issue: 22-02-11

Fire rated window, -/60/-, using Pilkington Pyrodur™ clear insulating glass in a steel frame

Page 1 of 2

DESCRIPTION

Steel framed fire rated window providing one hour of integrity only protection with perfectly clear Pilkington Pyrodur™ insulating glass, this system is a great solution for applications requiring certified fire resistance, with a requirement for clear glass and the added safety benefit of radiation protection.

APPLICATIONS

Car parks, factories and boundary walls, domestic houses or wherever there is a need for integrity only protection with a need to protect the building and occupants against the effect of radiant heat transmission.

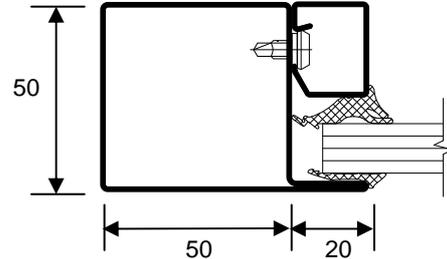
FEATURES

- Fully certified to Australian Standards AS1530.4
- -/60/- FRL
- Reduces radiant heat transmission by 90%
- Glass provides at least 10 minutes of insulation protection
- Internal and External applications
- 13mm Pilkington Pyrodur™ insulating clear glass
(18mm Pilkington Pyrostop may be used on large panes)
- Non insulated Forster® Presto steel framing system
- Class A impact rated to AS2208
- For use in fire rated masonry walls.
- Single panes up to 2900 x 1400 per pane
- Multi panes up to 2900 x 1400 per pane
- Multi pane systems up to 4m high, no limitation on span
- Arched windows
- Can be integrated into steel framed glass fire doors
(Contact Pyropanel for more information)
- Standard finish is Prime Painted, ready for undercoating and top coat

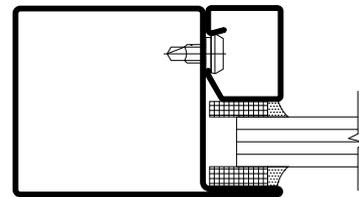
OPTIONAL EXTRAS

- Stainless Steel frames
- Powdercoating
- Tinted films

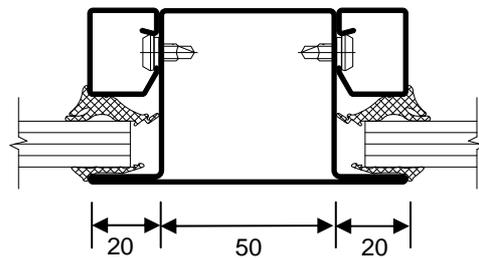
PROFILES



Standard profile with rubber beading (internal application)



Standard profile with silicone beading (internal or external application)



Standard mullion and transom profile

MODELS AVAILABLE

Model	FRL	Glass Thickness	Max pane size - Single or continuous
PFWS-PD60/-	-/60/-	13mm/19mm	2900 x 1400

Note: 19mm will be used on sizes greater than 2600 x 700, or 1800 x 1300, or linear transition between these sizes

HOW TO SPECIFY

Eg, "Window to be fully test and certified Pyropanel Fire Window **PFWS-PD60/-**, -/60/- FRL, incorporating Forster non-insulated steel frame and 13mm Pilkington Pyrodur™ clear intumescent glass, with rubber beading / silicone weather seal*. System available from Pyropanel Developments"

* denotes example - delete or change or specify as required

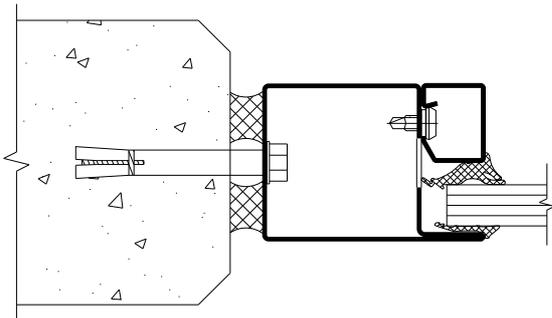


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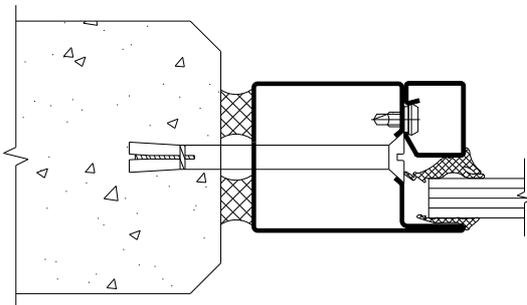
WALL ABUTMENTS AND BUILDING IN DETAILS

All windows must be tightly sealed to surrounding fire rated wall using Pyropanel Multiflex fire rated acrylic sealant or approved equivalent. For external applications, an additional layer of weather resistant silicone must be applied to the exposed Multiflex to create a water resistant barrier. All required flashings are by builder or other parties. Most fixings are approved for most wall types.



Fixing type FTP01

M6 Dynabolt into masonry wall at max 600mm centers. Can only be used for site glazed applications. Fixings to 3 sides minimum.



Fixing type FTP02

M6 Flat head Dynabolt into masonry wall at max 600mm centers. Can only be used for site glazed applications. Fixings to 3 sides minimum.

GLASS DATA

Product	Nominal Thickness (mm)	Application	Integrity (mins)	Insulation (mins)	Sound Reduction**	Light transmission %	Approx weight of glass (kg/m ²)	Approx weight of glass and frame (kg/m ²)
Pyrodur™	13	Internal / External	60	-	38	86	31	32



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FIRE RATED GLAZING

Pyrostop -/60/60 and -/60/30 fire window

TECH SHEET: FW-04

Issue: 22-02-11

Fire rated window, -/60/60 and -/60/30, using Pilkington Pyrostop™ clear glass in an insulated steel frame

Page 1 of 3

DESCRIPTION

Insulated steel framed fire rated window providing one hour of integrity and insulation protection with perfectly clear Pilkington Pyrostop™ insulating glass, this system is a great solution for applications requiring certified fire resistance for both integrity and insulation and the added safety benefit of radiation protection.

APPLICATIONS

Fire escapes, smoke lobbies, computer rooms, car parks and factories, boundary walls, domestic houses or wherever there is a need for integrity and insulation protection, with the need to protect the building and occupants against the spread of fire due to radiant heat transmission.

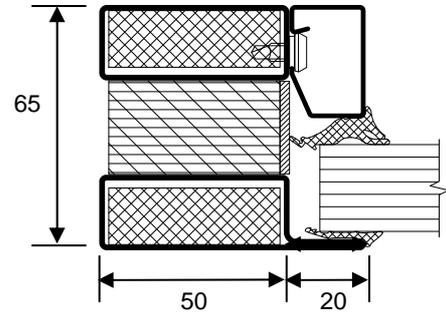
FEATURES

- Fully certified to Australian Standards AS1530.4
- -/60/60 FRL using 23mm Pilkington Pyrostop™ for internal applications, and 27mm for external applications
- -/60/30 FRL using 18mm Pilkington Pyrostop™ for both internal and external applications
- Reduces radiant heat transmission by 98%
- Internal and External applications
- Light transmission comparable to 5mm float glass
- Forster® Fuego Light triple insulated framing system
- Class A impact rated to AS2208
- For use in fire rated masonry walls
- Single and multiple panes up to 2865 x 1465 visible (3005 x 1605 overall frame size)
- Multi panes up to 4m high, no limitations on span
- Arched windows
- Can be integrated into steel framed -/60/30 glass fire doors (*Refer metal glass fire door tech sheet FD-06 for more information*)
- Standard finish is Prime Painted, ready for undercoating and top coat

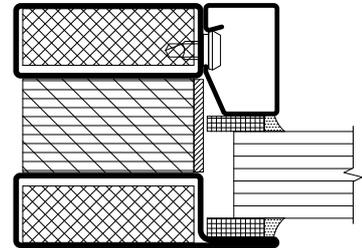
OPTIONAL EXTRAS

- Stainless Steel frames
- Powdercoating
- Tinted films

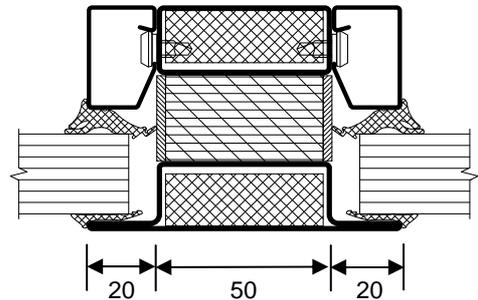
PROFILES



Standard profile with rubber beading (internal application)



Standard profile with silicone beading (internal or external application)



Standard mullion and transom profile

MODELS AVAILABLE

Model	FRL	Glass Thickness	Max Pane size (visible)
PFWS-PS60/60	-/60/60	23 or 27mm	2865 x 1465
PFWS-PS60/30	-/60/30	18mm	2400 x 1200

HOW TO SPECIFY

Eg, "Window to be fully test and certified Pyropanel Fire Window **PFWS-PS60/60**, -/60/60 FRL, incorporating Forster triple insulated steel frame and 23mm / 27mm* Pilkington Pyrostop™ clear intumescent glass, with rubber beading / silicone weather seal*. System available from Pyropanel Developments"

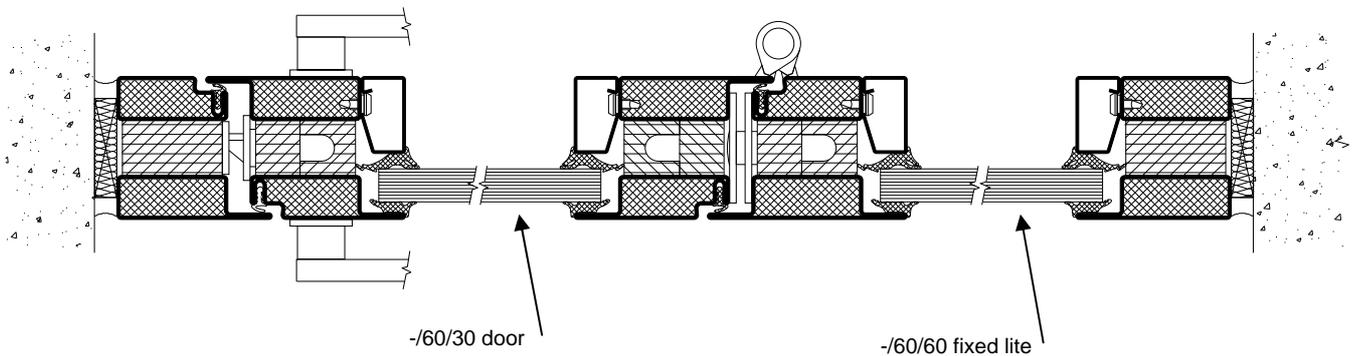
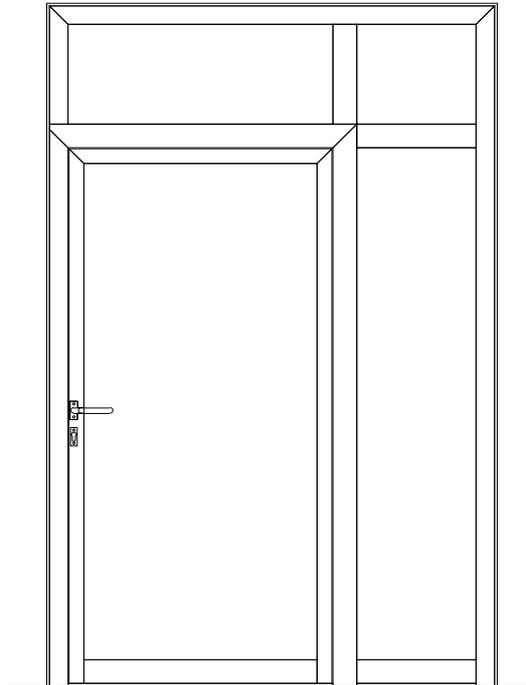
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TYPICAL FIXED LITE / DOOR ASSEMBLY



GLASS DATA

Product	Nominal Thickness (mm)	Application	Integrity (mins)	Insulation (mins)	Sound Reduction**	Light transmission %	Approx weight of glass (kg/m ²)	Approx weight of glass and frame (kg/m ²)
Pyrostop™	18	Internal / External	60	30	38	85	42	55
Pyrostop™ with Optiwhite™	23	Internal	60	60	40	88	55	68
Pyrostop™ with Optiwhite™	27	Internal / External	60	60	41	86	63	76

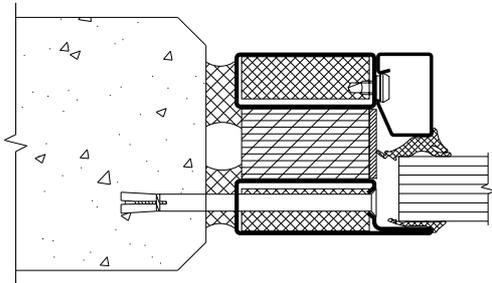
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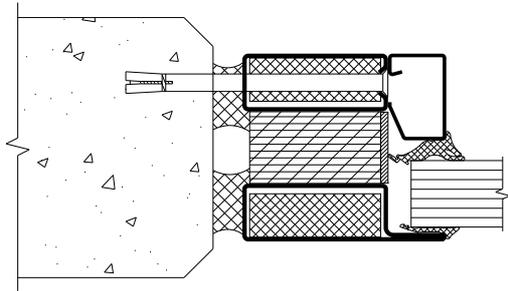
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WALL ABUTMENTS AND BUILDING IN DETAILS



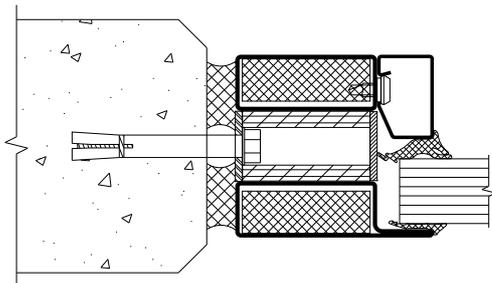
Fixing type FTFL01

M6 Flat head Dynabolt into masonry wall or 12G screws into fire rated Gyprock wall on lip side of frame, at max 600mm centers. Can only be used for site glazed applications. Fixings to 3 sides minimum.



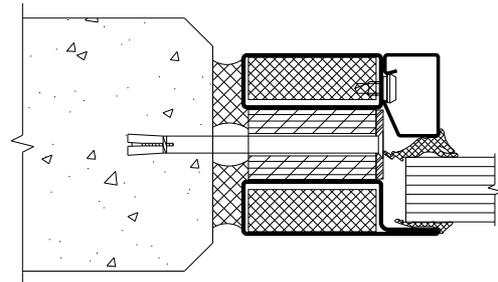
Fixing type FTFL02

M6 Flat head Dynabolt into masonry wall or 12G screws into fire rated Gyprock wall on beading side of frame, at max 600mm centers. Can only be used for site glazed applications. Fixings to 3 sides minimum.



Fixing type FTFL03

M6 Flat head Dynabolt into masonry wall or 12G screws into fire rated Gyprock wall recessed into middle of frame, at max 600mm centers. Can only be used for site glazed applications. Fixings to 3 sides minimum.



Fixing type FTFL04

M6 Flat head Dynabolt into masonry wall or 12G screws into fire rated Gyprock wall recessed into middle of frame, at max 600mm centers. Can only be used for site glazed applications. Fixings to 3 sides minimum.

FIRE RATED GLAZING

Pyrostop -/90/90 fire window

TECH SHEET: FW-05

Issue: 22-02-11

Fire rated window, -/90/90 using Pilkington Pyrostop™ clear glass in an insulated steel frame

Page 1 of 3

DESCRIPTION

Insulated steel framed fire rated window providing 90 minutes integrity and 90 minutes of insulation protection with Pilkington Pyrostop™ perfectly clear insulating glass, this system is a great solution for applications requiring certified fire resistance for both integrity and insulation and the added safety benefit of radiation protection.

APPLICATIONS

Fire escapes, smoke lobbies, computer rooms, car parks and factories, boundary walls, or wherever there is a need for integrity and insulation protection, with the need to protect the building and occupants against the spread of fire due to radiant heat transmission.

FEATURES

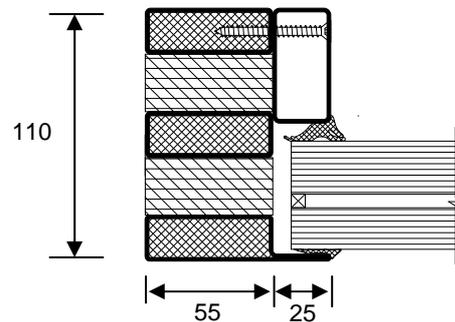
- Fully certified to Australian Standards AS1530.4
- -/90/90 FRL using 47mm Pilkington Pyrostop™ for both internal and external applications
- Reduces radiant heat transmission by over 98%
- Internal and External applications
- Very high light transmission value
- Forster® insulated framing system
- Class A impact rated to AS2208
- For use in fire rated masonry walls.
- Single or Multiple panes up to 2400h x 1415w (visible) (2560 x 1575 overall frame size) (**recommended max size: 1.5m² due to weight of system - Larger sizes are available upon request, however highly specialised lifting and glazing equipment will be required**)
- Arched windows
- Can be integrated into steel framed -/60/30 glass fire doors (*Contact Pyropanel for more information*)
- Standard finish is Prime Painted, ready for undercoating and top coat

OPTIONAL EXTRAS

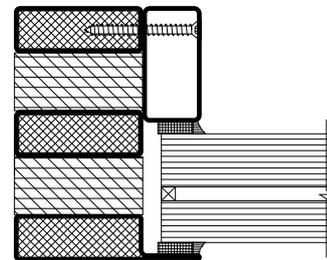
- Powdercoating
- Tinted films

MODELS AVAILABLE

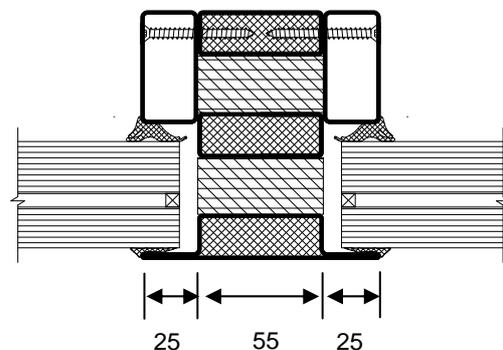
Model	FRL	Glass Thickness	Max Pane size (visible)
PFWS-PS90/90	-/90/90	47mm	2400 x 1415*



Standard profile with rubber beading (internal application)



Standard profile with silicone beading (internal or external application)



Standard mullion and transom profile

Continued...

HOW TO SPECIFY

Eg, "Window to be fully test and certified Pyropanel Fire Window **PFWS-PS90/90**, -/90/90 FRL, incorporating Forster insulated steel frame and 47mm*Pilkington Pyrostop™ clear intumescent glass, with rubber beading / silicone weather seal*. System available from Pyropanel Developments"

* denotes example - delete or change or specify as required



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 122-124 Beresford Rd, Lilydale, VIC, 3140
 Ph: (03) 9739 3100 Fax: (03) 9739 3115
 Email: sales@pyropanel.com.au
 Web: www.pyropanel.com.au

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GLASS DATA

Product	Nominal Thickness (mm)	Application	Integrity (mins)	Insulation (mins)	Sound Reduction (Rw)	Light transmission %	Approx weight of glass (kg/m ²)	Approx weight of glass and frame (kg/m ²)
Pyrostop™	47 IGU (23+6+18)	Internal / External	90	90	43	75	96	120

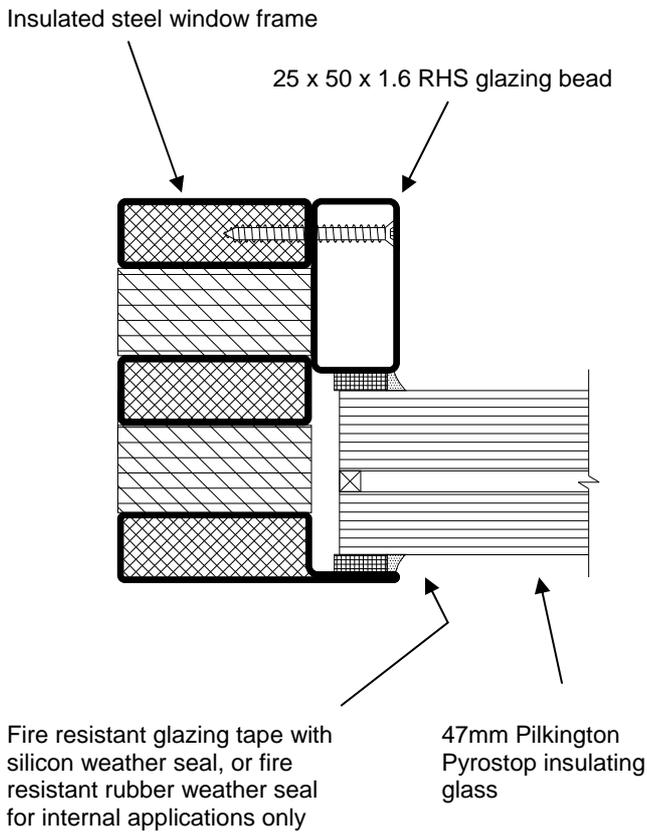
SYSTEM DETAILS

Standard system

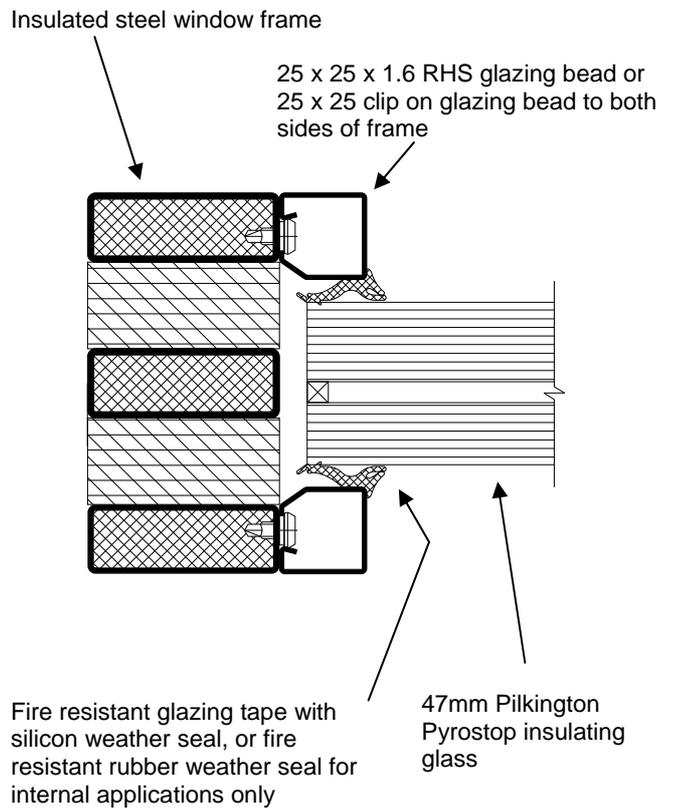
- Off set glazing
- Silicon weather sealing for internal or external applications (wet glazing), or optional rubber weather stripping for internal application only (dry glazing)

Optional glazing system

- Centre glazing
- Silicon weather sealing for internal applications only (wet glazing), or optional rubber weather stripping for internal application only (dry glazing)
- Frame profile may require extended lead times



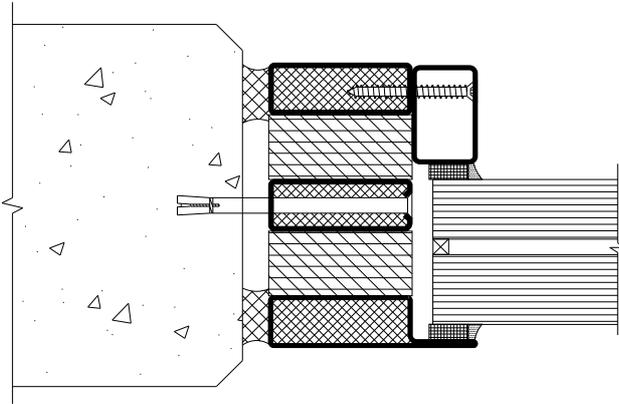
Standard off set glazing profile (internal or external application)



Alternative centre line glazing profile (internal application only)
Note: this frame profile may require extended lead times

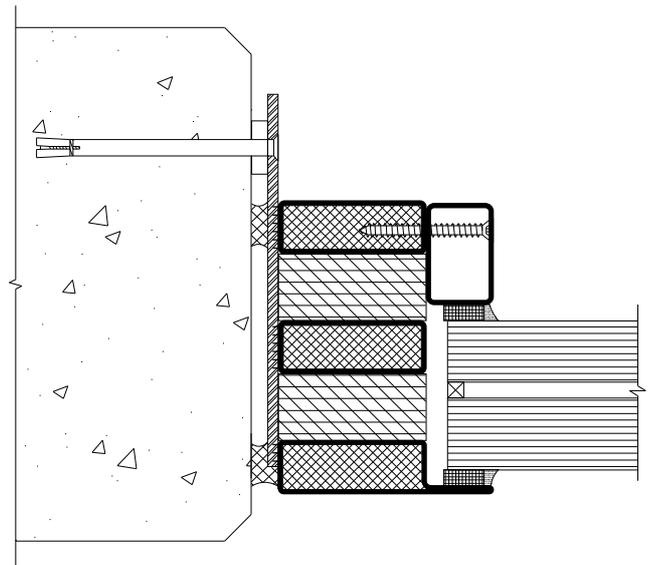
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BUILDING IN AND FIXING TYPE DETAILS



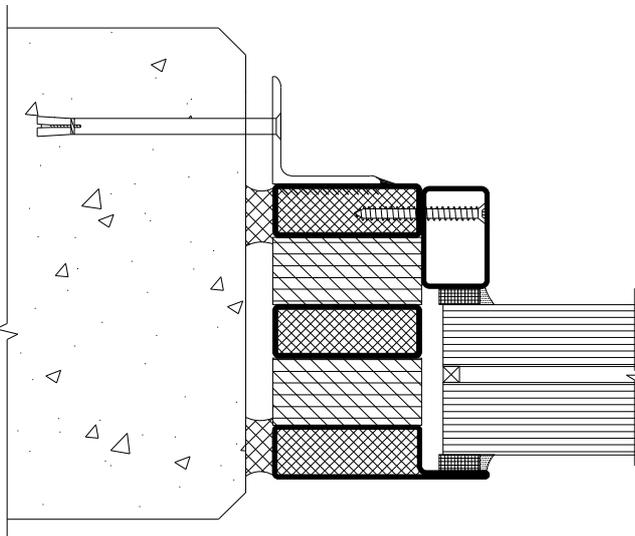
Fixing type FTFC01

M6 Flat head Dynabolt into masonry wall or 12G screws into fire rated Gyprock wall through steel frame, at max 600mm centers. Can only be used for site glazed applications. Fixings to 3 sides minimum (4 recommended)



Fixing type FTFC03

M6 Dynabolt into masonry wall or 12G screws into fire rated Gyprock wall through 150 x 50 x 2.5 welded steel plate at max 600mm centers. Can be used for factory glazed or site glazed applications. Fixings to 3 sides minimum (4 recommended)



Fixing type FTFC02

M6 Dynabolt into masonry wall or 12G screws into fire rated Gyprock wall through 75 x 75 x 3mm welded steel angle sections at max 600mm centers. Can be used for factory glazed or site glazed applications. Fixings to 3 sides minimum (4 recommended).

FIRE RATED GLAZING

Pyrostop -/120/120 fire window

TECH SHEET: FW-06

Issue: 22-02-11

Fire rated window, -/120/120 using Pilkington Pyrostop™ clear glass in an insulated steel frame

Page 1 of 3

DESCRIPTION

Insulated steel framed fire rated window providing 120 minutes integrity and 120 minutes of insulation protection with perfectly clear Pilkington Pyrostop™ insulating glass, this system is a great solution for applications requiring certified fire resistance for both integrity and insulation and the added safety benefit of radiation protection.

APPLICATIONS

Fire escapes, smoke lobbies, computer rooms, car parks and factories, boundary walls, or wherever there is a need for integrity and insulation protection, with the need to protect the building and occupants against the spread of fire due to radiant heat transmission.

FEATURES

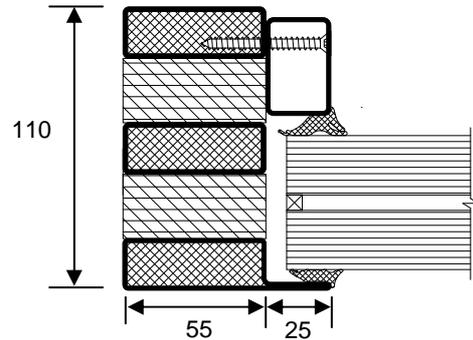
- Fully certified to Australian Standards AS1530.4
- -/120/120 FRL using 52mm Pilkington Pyrostop™ for internal applications, and 56mm for external applications
- Reduces radiant heat transmission by over 98%
- Internal and External applications
- Very high light transmission value
- Forster® insulated framing system
- Class A impact rated to AS2208
- For use in fire rated masonry walls.
- Single or Multiple panes up to 2400h x 1415w (visible) (2560 x 1575 overall frame size) (**recommended max size: 1.5m2 due to weight of system - Larger sizes are available upon request, however highly specialised lifting and glazing equipment will be required**)
- Arched windows
- Can be integrated into steel framed -/60/30 glass fire doors (*Contact Pyropanel for more information*)
- Standard finish is Prime Painted, ready for undercoating and top coat

OPTIONAL EXTRAS

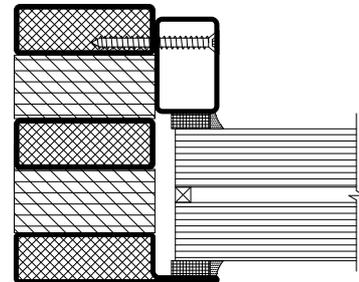
- Powdercoating
- Tinted films

MODELS AVAILABLE

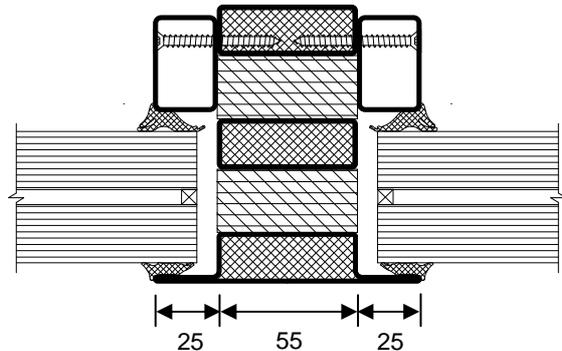
Model	FRL	Glass Thickness	Max Pane size (visible)
PFWS-PS120/120	-/120/120	52 or 56mm	2400 x 1415*



Standard profile with rubber beading (internal application)



Standard profile with silicone beading (internal or external application)



Standard mullion and transom profile

Continued...

HOW TO SPECIFY

*Eg, "Window to be fully test and certified Pyropanel Fire Window **PFWS-PS120/120**, -/120/120 FRL, incorporating Forster insulated steel frame and 52 / 56mm*Pilkington Pyrostop™ clear intumescent glass, with rubber beading / silicone weather seal*. System available from Pyropanel Developments"*

* denotes example - delete or change or specify as required



Pyropanel Developments Pty Ltd
 122-124 Beresford Rd, Lilydale, VIC, 3140
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 Web: www.pyropanel.com.au

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GLASS DATA

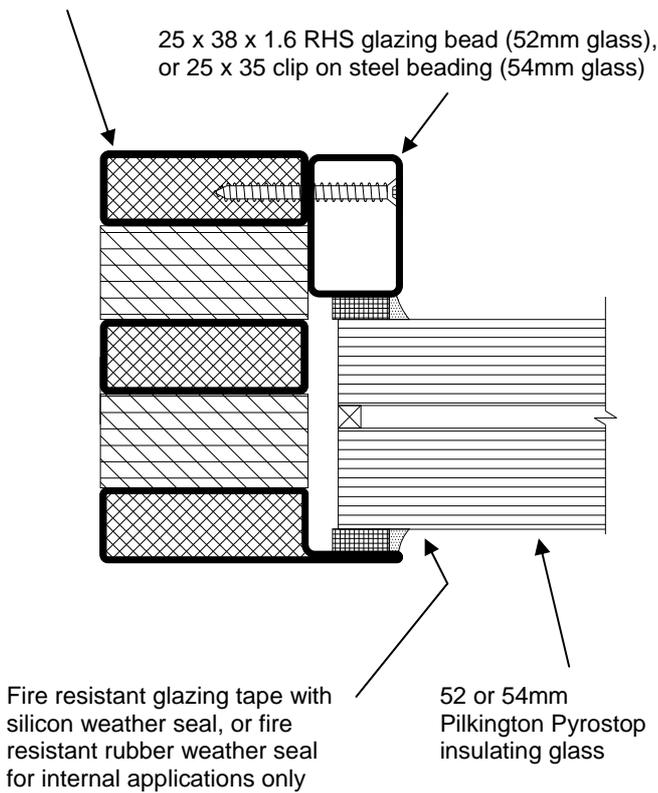
Product	Nominal Thickness (mm)	Application	Integrity (mins)	Insulation (mins)	Sound Reduction**	Light transmission %	Approx weight of glass (kg/m ²)	Approx weight of glass and frame (kg/m ²)
Pyrostop™ with Optiwhite™	52 IGU (23+6+23)	Internal	120	120	42	78	106	130
Pyrostop™ with Optiwhite™	56 IGU (27+6+23)	Internal / External	120	120	47	77	125	150

SYSTEM DETAILS

Standard system

- Off set glazing
- Silicon weather sealing for internal or external applications (wet glazing), or optional rubber weather stripping for internal application only (dry glazing)

Insulated steel window frame

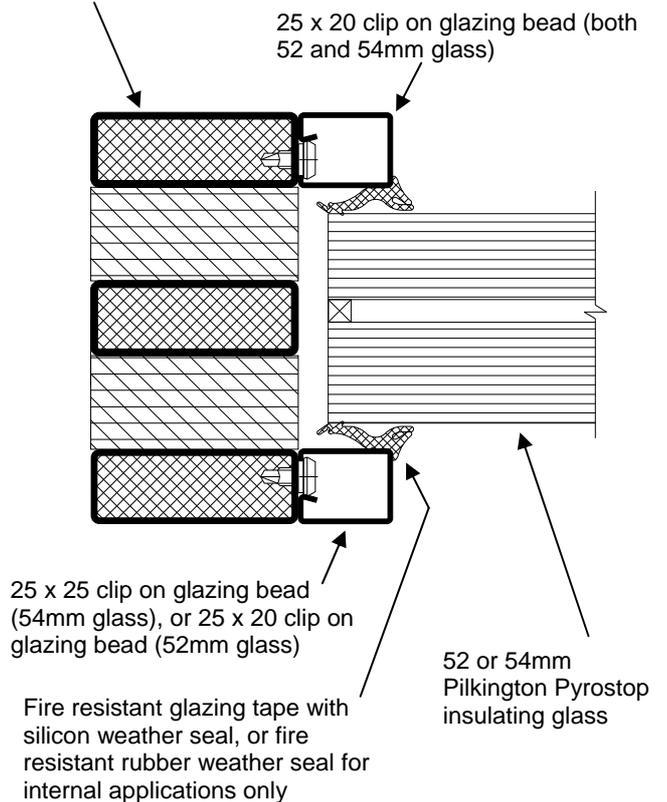


Standard off set glazing profile (internal or external application)

Optional glazing system

- Centre glazing
- Silicon weather sealing for internal applications only (wet glazing), or optional rubber weather stripping for internal application only (dry glazing)
- Frame profile may require extended lead times

Insulated steel window frame

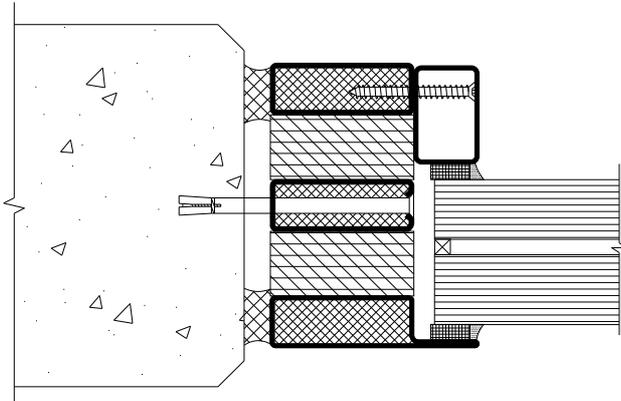


Alternative centre line glazing profile (internal application only)

Note: this frame profile may require extended lead times

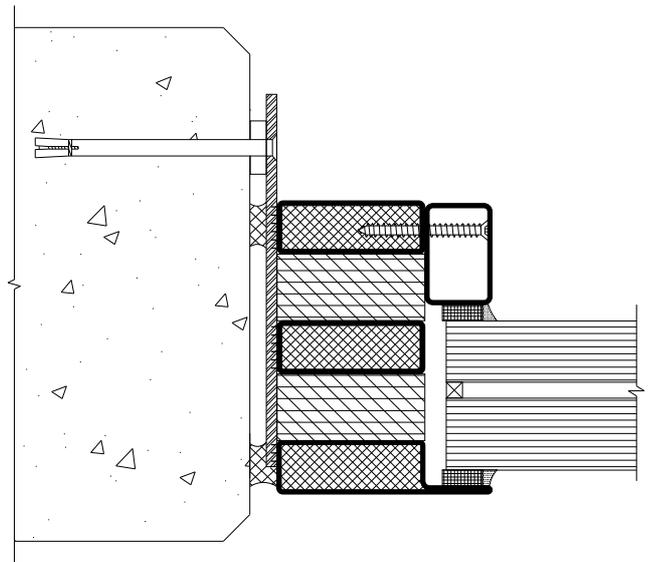
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BUILDING IN AND FIXING TYPE DETAILS



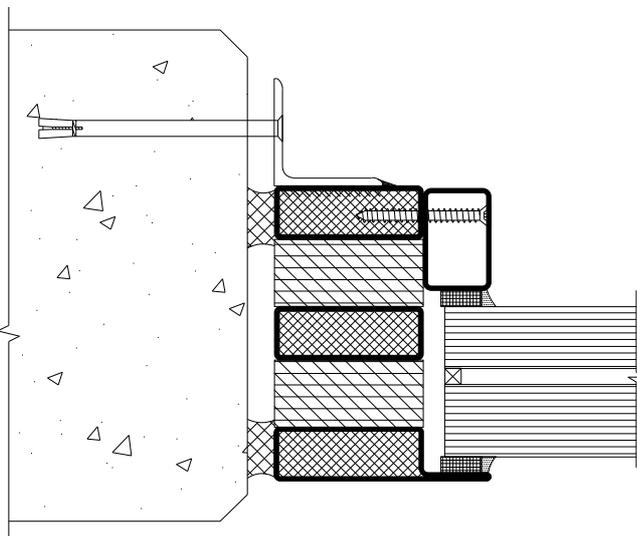
Fixing type FTFC01

M6 Flat head Dynabolt into masonry wall or 12G screws into fire rated Gyprock wall through steel frame, at max 600mm centers. Can only be used for site glazed applications. Fixings to 3 sides minimum (4 recommended)



Fixing type FTFC03

M6 Dynabolt into masonry wall or 12G screws into fire rated Gyprock wall through 150 x 50 x 2.5 welded steel plate at max 600mm centers. Can be used for factory glazed or site glazed applications. Fixings to 3 sides minimum (4 recommended)



Fixing type FTFC02

M6 Dynabolt into masonry wall or 12G screws into fire rated Gyprock wall through 75 x 75 x 3mm welded steel angle sections at max 600mm centers. Can be used for factory glazed or site glazed applications. Fixings to 3 sides minimum (4 recommended).

FIRE RATED GLAZING

Pyrostop -/60/30 timber framed fire window

TECH SHEET: FW-07

Issue: 22-02-11

Fire rated timber framed window, FRL -/60/30 using Pilkington Pyrostop™ clear glass for internal and external

Page 1 of 2

DESCRIPTION

Timber framed fire rated window providing one hour of integrity and 30 minutes of insulation protection with perfectly clear Pilkington Pyrostop™ insulating glass, with an FRL of -/60/30. Suitable for internal and external applications.

APPLICATIONS

Domestic houses, fire escapes, smoke lobbies, computer rooms, car parks and factories, boundary walls, or wherever there is a need for integrity and insulation protection, and the need to protect the building and occupants against the spread of fire due to radiant heat transmission.

FEATURES

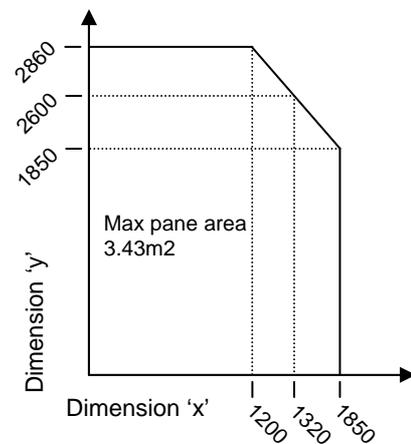
- Fully certified to Australian Standards AS1530.4
- -/60/30 FRL using 18mm Pilkington Pyrostop™ glass
- Pyropanel® special fire rated timber framing system with proprietary fire rated gaskets and sealants
- Reduces radiant heat transmission by up to 98%
- Internal and external applications
- Light transmission comparable to 5mm float glass
- Class A impact rated to AS2208
- For use in 1hr plasterboard walls and fire rated masonry walls.
- Single and multiple pane configurations
- Max pane size up to 3.3m2 visible area (3.4m2 pane size), with pane size up to 2860 x 1200 (see table).
- Multi pane configurations up to 4m high, no limitations on multi-pane span
- Can be installed as a side-lite or top-lite for 1hr fire rated doors in timber frames, including 1/2 lite and full lite timber-glass fire doors (*See Pyropanel glass fire doors, or contact Pyropanel for more information*)
- Frames can be painted, stained, or lacquered

OPTIONAL EXTRAS

- Tinted and opaque films
- Custom frame profiles available on request

MAXIMUM PANE SIZES

Maximum pane dimension 'y' (actual glass pane size) (mm)	Maximum pane dimension 'x' (actual glass pane size) (mm)	Maximum Pane area	Max visible size	Approx max overall pane size including frame
2860	1200	3.43m2	2826 x 1166 (3.3m2)	2956 x 1296
2600	1320	3.43m2	2566 x 1286 (3.3m2)	2696 x 1416
1850	1850	3.43m2	1816 x 1816 (3.3m2)	1946 x 1946



Maximum pane dimensions

Note: Dimensions 'x' and 'y' can be either horizontal or vertical (portrait or landscape). Any size is approved within the area under the graph, provided that the maximum sizes are not exceeded as per this graph, and provided that the maximum glass pane size is not greater than 3.43m2 (3.3m2 visible).

MODELS AVAILABLE

Model	FRL	Glass Thickness	Frame type	Max visible area
PFWT-PS60/30	-/60/30	18mm	Pyropanel® fire rated timber	3.3m2

HOW TO SPECIFY

Eg, "Window to be fully test and certified Pyropanel Timber Fire Window PFWT-PS60/30, -/60/30 FRL, incorporating Pyropanel fire rated timber window framing system and 18mm Pilkington Pyrostop™ clear intumescent glass. System available from Pyropanel Developments"....

Continued...



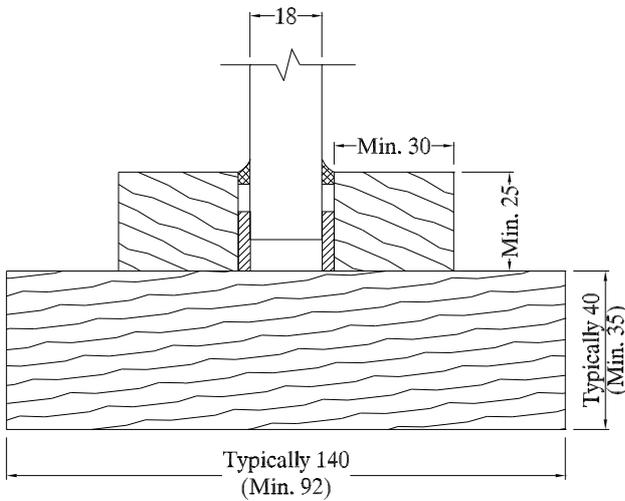
Pyropanel Developments Pty Ltd
 122-124 Beresford Rd, Lilydale, VIC, 3140
 Ph: (03) 9739 3100 Fax: (03) 9739 3115
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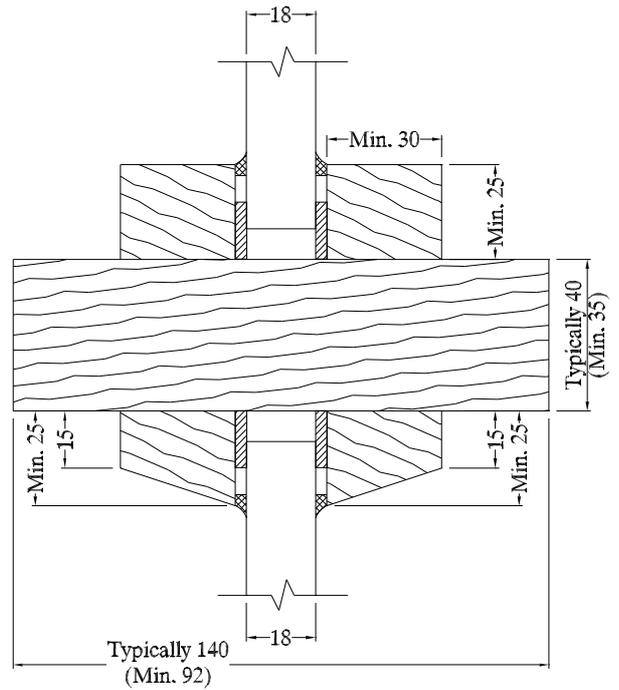
GLASS DATA

Product	Nominal Thickness (mm)	Application	Integrity (mins)	Insulation (mins)	Sound Reduction	Light transmission %	Approx weight of glass (kg/m ²)	Approx weight of glass and frame (kg/m ²)
Pyrostop™	18	Internal / External	60	30	38	85	42	55

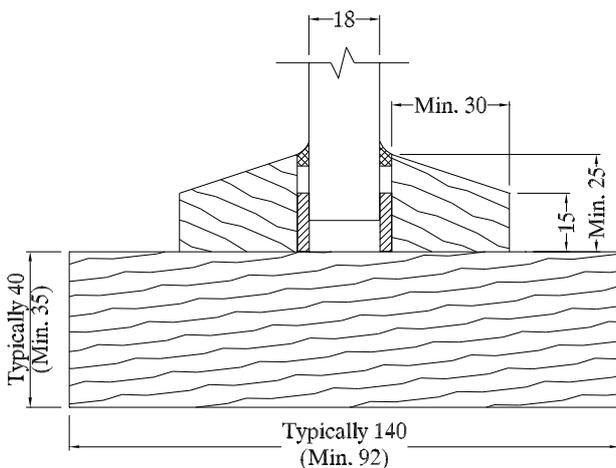
TYPICAL SECTIONS



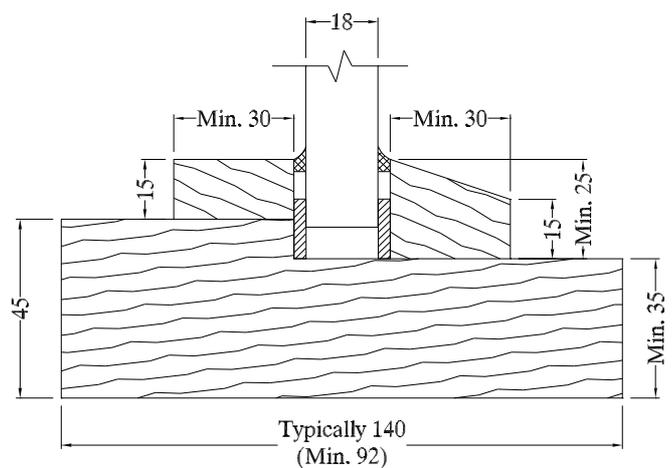
Typical section with standard square edge beading



Typical Mullion / transom section showing standard square edge beading or angled beading (optional)



Typical section with optional angled beading



Typical section with optional rebate for external applications



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