CERTIFICATE OF APPROVAL
No CF 6080

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

Polflam sp. z o. o.
Jeziorzany
Aleja Krakowska 3
zip Code: 05-555
Tarczyn
Poland

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

Polflam EW30
Polflam EW30 IGU
Polflam EI30
Polflam EI30 IGU
Polflam EI60
Polflam EI60 IGU
Polflam EI90
Polflam EI120
Polflam BR EI30
Polflam BR EI30 IGU
Polflam BR EI30 Curved
Polflam BR EI60
Polflam BR EI60 IGU
Polflam BR EI120

TECHNICAL SCHEDULE

TS 25 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:	28th November 2022
Revised:	23rd November 2023
Valid to:	27th November 2027

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Glass	Application	Integrity - (mins)	Insulation - (mins)	Page No.
Polflam EW30 (16mm)	Timber Screens	30	0	4
Polflam EW30 (16mm) IGU	Timber Screens	30	0	5
Polflam EI30 (20mm)	Timber Screens	30	30	6
Polflam EI30 (20mm) IGU	Timber Screens	30	30	7
Polflam EI60 (28mm)	Timber Screens	60	60	8
Polflam EI60 (28mm) IGU	Timber Screens	60	60	9
Polflam EI30 (20mm)	Steel Screens	30	30	10
Polflam EI60 (28mm)	Steel Screens	60	60	11
Polflam EI90 (35mm)	Steel Screens	90	90	12
Polflam EI120 (40mm)	Steel Screens	120	120	13
Polflam BR EI30 (30mm)	Timber Screens	30	30	14
Polflam BR EI60 (38mm)	Timber Screens	60	60	15
Polflam BR EI30 (30mm)	Steel Screens	30	30	16
Polflam BR EI30 (30mm) IGU	Steel Screens	30	30	17
Polflam BR EI60	Steel Screens	60	60	18
Polflam BR EI120 (50mm)	Steel Screens	120	120	19
Polflam BR EI120 (50mm)	Steel Screens	120	120	20
Polflam BR EI30 (20mm) (Curved)	Steel Screens	30	30	21-22
Polflam BR EI60 (35mm) IGU	Aluprof MB-78EI	60	60	23
Polflam EI30 (20mm)	Curtain Wall	30	30	24
Polflam EI60 (28mm) IGU	Curtain Wall	60	60	25
Polflam EI30 (20mm)	Steel Door	30	30	26
Polflam EI30 (20mm) IGU	Steel Door	30	30	27
Polflam EI60 (28mm)	Steel Door	60	60	28
Polflam EI60 (28mm) IGU	Steel Door	60	60	29
Polflam EI90 (35mm)	Steel Door	90	90	30

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1. 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.

2. This certificate of approval relates to the fire resistance, of Polflam glass when used in the above applications, as defined in BS 476: Part 22: 1987

3. This product is approved on the basis of:

   i) Initial type testing.
   ii) A design appraisal against TS25.
   iii) Certification of quality management system to ISO 9001.
   iv) Inspection and surveillance of factory production control.
   v) Audit testing.

4. In the case of all glazed screens; all maximum height, width and area dimensions relate to the glass pane size.

5. Where the glass is installed in a timber or steel framed screen, the orientation of the screen shall be no more than ±10º from the vertical.

6. Glass shall be glazed as depicted on the applicable page of this document.

7. This certification applies to the glass only. The framing and glazing system requirements are also defined within each application. The design, size and configuration of the screen, into which the glass is installed, shall be covered by appropriate test data.

8. There is no restriction to the direction of exposure for the glass i.e. the glass is symmetrical. There may, however, be restrictions due to the requirements of a non-symmetrical framing system or certain IGU specifications (the specific page shall be consulted).

9. For timber constructions; where beading is depicted (on the relevant page of this certificate) on both faces of the glass – this must be strictly adhered to. i.e. there shall be no substitution of one of the beads for a rebated timber profile. Where pins are depicted, screws may be used instead. The opposite is not applicable. Ash and Beech are strictly prohibited from use in the manufacture of timber frames.

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Polflam EW30 (16mm thick) in timber framed screens for 30 minutes integrity

The glass shall be glazed utilising the following basic specification:

1	Polflam EW30
2	Silicone Dowsil 791 - Dow
4	Intumescent tape Kerafix FXL200 16x2 - Rolf Kuhn
5	Ceramic tape Kerafix 2000 15x4mm - Rolf Kuhn
6	Nail 1,6x40mm/Screw 3,5x40mm
7	Glazing bead min. 20x20/14mm - Wood >560kg/m3
8	Laminated profile min. 33x64mm - Wood >560kg/m3 (Rebated profile possible)
9	Screw - SPAX RA Ø7,5 X 150
10	Aerated concrete masonry ≥120mm
11	Mineral wool density≥31kg/m3

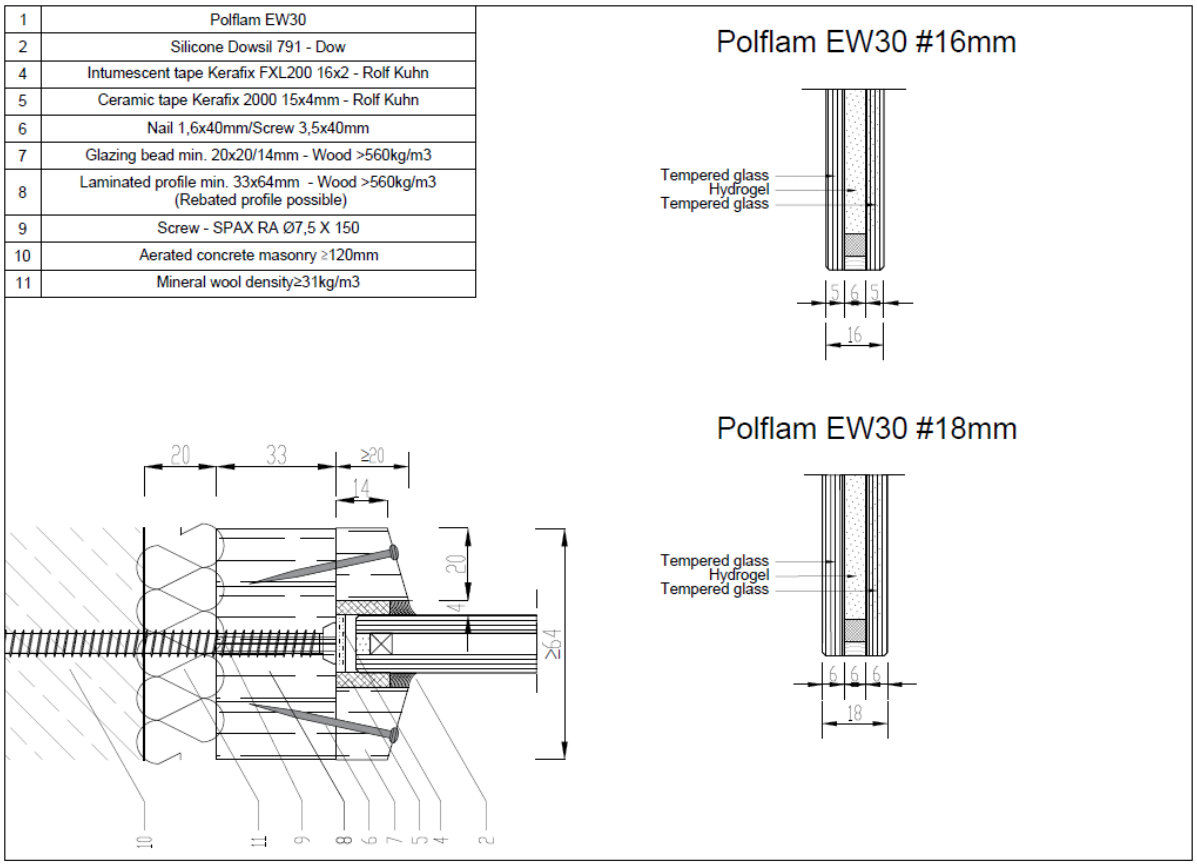

Table 1 – Maximum Permitted Glass Dimensions			
	Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
Landscape	1800 (at 3000 wide)	3600 (at 1500 high)	5.4
Portrait	1800 (at 2311 wide)	2773 (at 1500 high)	4.16

Note: For radiation performance the manufacturer shall be consulted.
Note: The timber of the frame shall be a hardwood with a minimum density of 560kg/m^3.

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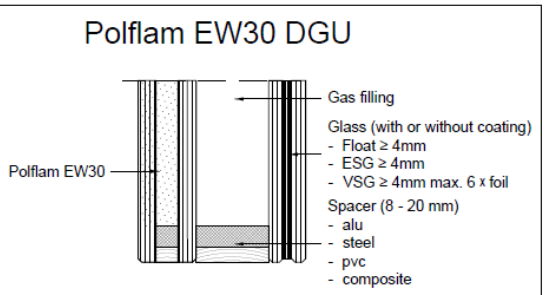
Polflam EW30 (16mm thick) IGU in timber framed screens for 30 minutes integrity

The glass shall be glazed utilising the following basic specification:

1	Polflam EW30 IGU
2	Silicone Dowsil 791 - Dow
4	Intumescent tape Kerafix FXL200 20x2 - Rolf Kuhn
5	Ceramic tape Kerafix 2000 15x4mm - Rolf Kuhn
6	Nail 1,6x40mm/Screw 3,5x40mm
7	Glazing bead min. 20x20/14mm - Wood >560kg/m3
8	Laminated profile min. 33x94mm - Wood >560kg/m3 (Rebated profile possible)
9	Screw - WHO-75152 - Wkret-Mat
10	Aerated concrete masonry ≥120mm
11	Mineral wool density≥31kg/m3



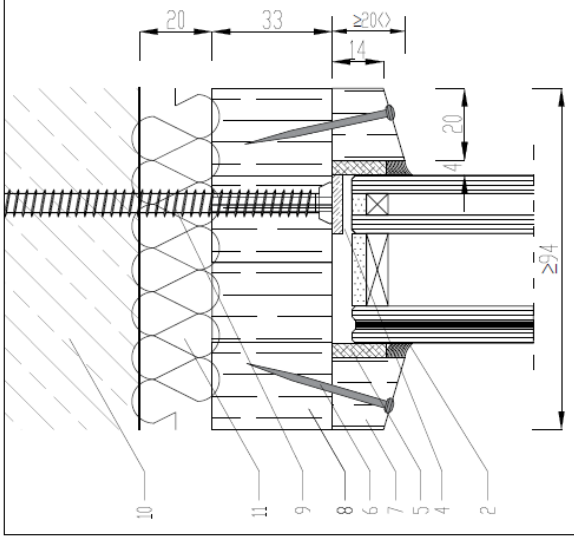


Table 2 – Maximum Permitted Glass Dimensions			
	Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
Landscape	1800 (at 3000 wide)	3600 (at 1500 high)	5.4
Portrait	1800 (at 2311 wide)	2773 (at 1500 high)	4.16

Note: For radiation performance the manufacturer shall be consulted.
Note: The timber of the frame shall be a hardwood with a minimum density of 560kg/m^3.

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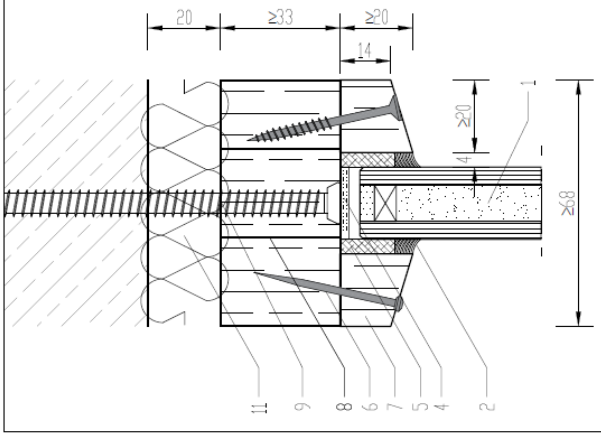
Note: The orientation of the glazing shall be limited to the Polflam FR glass on the fire side.

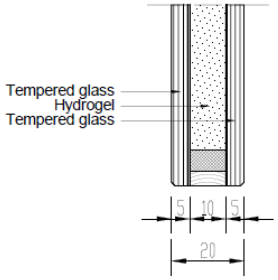
Polflam EI30 (20mm thick) in timber framed screens for 30 minutes integrity and insulation

The glass shall be glazed utilising the following basic specification:

1	Polflam EI30
2	Silicone Dowsil 791 - Dow
4	Intumescent tape Kerafix FXL200 20x2 - Rolf Kuhn
5	Ceramic tape Kerafix 2000 15x4mm - Rolf Kuhn
6	Nail 1,6x40mm/Screw 3,5x40mm
7	Glazing bead min. 20x20/14mm - Wood >560kg/m3
8	Laminated profile min. 33x68mm - Wood >560kg/m3 (Rebated profile possible)
9	Anchor 7,5x152mm (rigid wall) / Screw 4,8x120 (flexible wall)
10	Aerated concrete masonry ≥120mm / flexible wall EI30
11	Mineral wool density≥31kg/m3



Polflam EI30 #20mm



Polflam EI30 #22mm

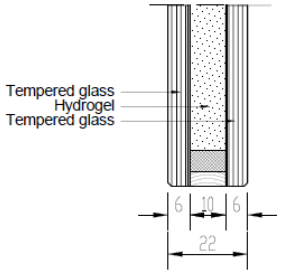


Table 3 – Maximum Permitted Glass Dimensions			
	Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
Landscape	1800 (at 3000 wide)	3600 (at 1500 high)	5.4
Portrait	4200 (at 1500 wide)	1800 (at 3500 high)	6.3

Note: The timber shall be a hardwood with a minimum density of 560kg/m^3.

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Note: For pane dimension above 3000mm high by 1500mm wide or 1500mm high by 3000mm wide the glass pane shall be the 22mm thick variant.

Polflam EI30 (20mm thick) IGU in timber framed screens for 30 minutes integrity and insulation

The glass shall be glazed utilising the following basic specification:

1	Polflam EI30 IGU
2	Silicone Dowsil 791 - Dow
4	Intumescent tape Kerafix FXL200 20x2 - Rolf Kuhn
5	Ceramic tape Kerafix 2000 15x4mm - Rolf Kuhn
6	Nail 1,6x40mm/Screw 3,5x40mm
7	Glazing bead min. 20x20/14mm - Wood >560kg/m3
8	Laminated profile min. 33x XX mm - Wood >560kg/m3 (Rebated profile possible)
9	Anchor 7,5x152mm (rigid wall) / Screw 4,8x120 (flexible wall)
10	Aerated concrete masonry ≥120mm / flexible wall EI30
11	Mineral wool density≥31kg/m3

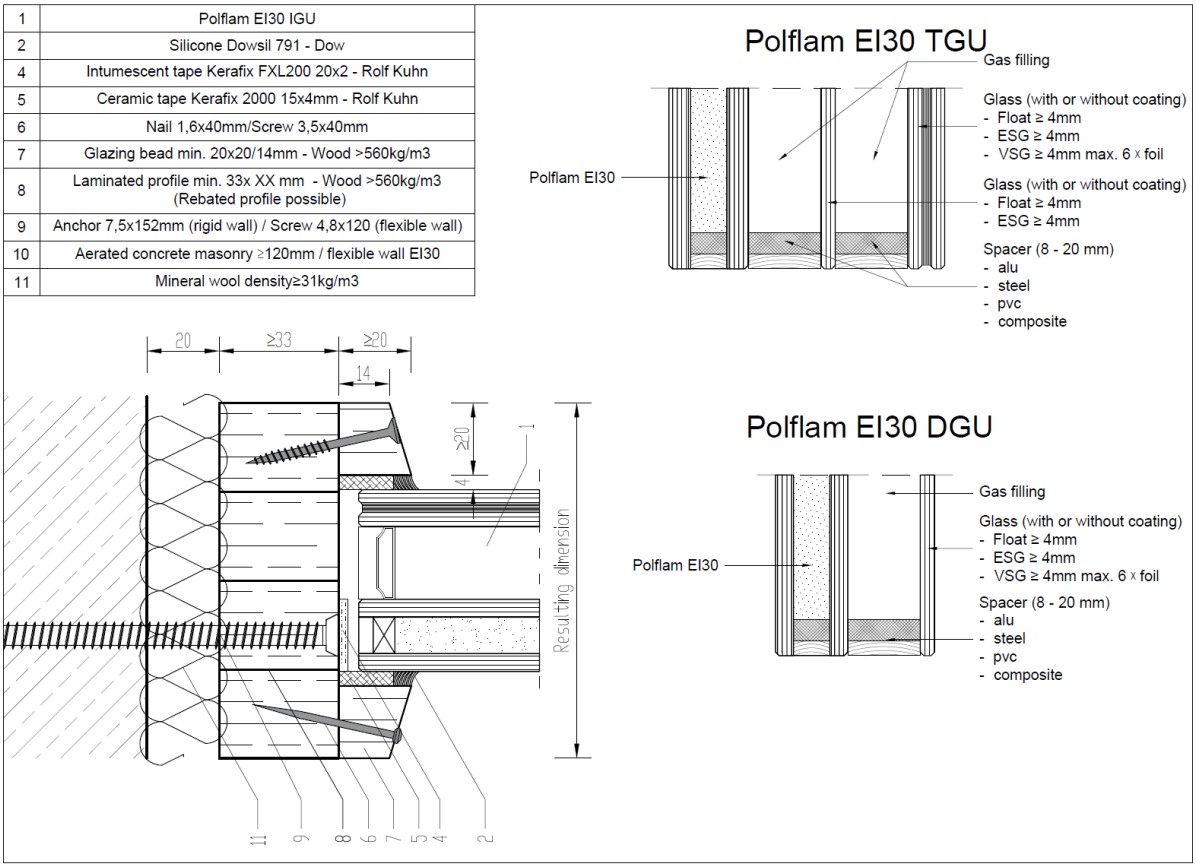

Table 4 – Maximum Permitted Glass Dimensions			
	Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
Landscape	1800 (at 3000 wide)	3600 (at 1500 high)	5.4
Portrait	4200 (at 1500 wide)	1800 (at 3500 high)	6.3

Note: The timber shall be a hardwood with a minimum density of 560kg/m^3.

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Note: For pane dimension above 3000mm high by 1500mm wide or 1500mm high by 3000mm wide the glass pane shall be the 22mm thick variant.

Note: The fire resistant pane must be oriented towards the fire risk side.

Polflam EI60 (28mm thick) in timber framed screens for 60 minutes integrity and insulation

The glass shall be glazed utilising the following basic specification:

1	Polflam EI60
2	Silicone Dowsil 791 - Dow
4	Intumescent tape Kerafix FXL200 30x2 - Rolf Kuhn
5	Ceramic tape Kerafix 2000 15x4mm - Rolf Kuhn
6	Nail 1,6x40mm/Screw 3,5x40mm
7	Glazing bead min. 27x20/14mm - Hardwood >650kg/m3
8	Laminated profile min. 33x90mm - Hardwood >650kg/m3 (Rebated profile possible)
9	Anchor 7,5x152mm (rigid wall) / Screw 4,8x120 (flexible wall)
10	Aerated concrete masonry ≥150mm / flexible wall EI60
11	Mineral wool density≥31kg/m3

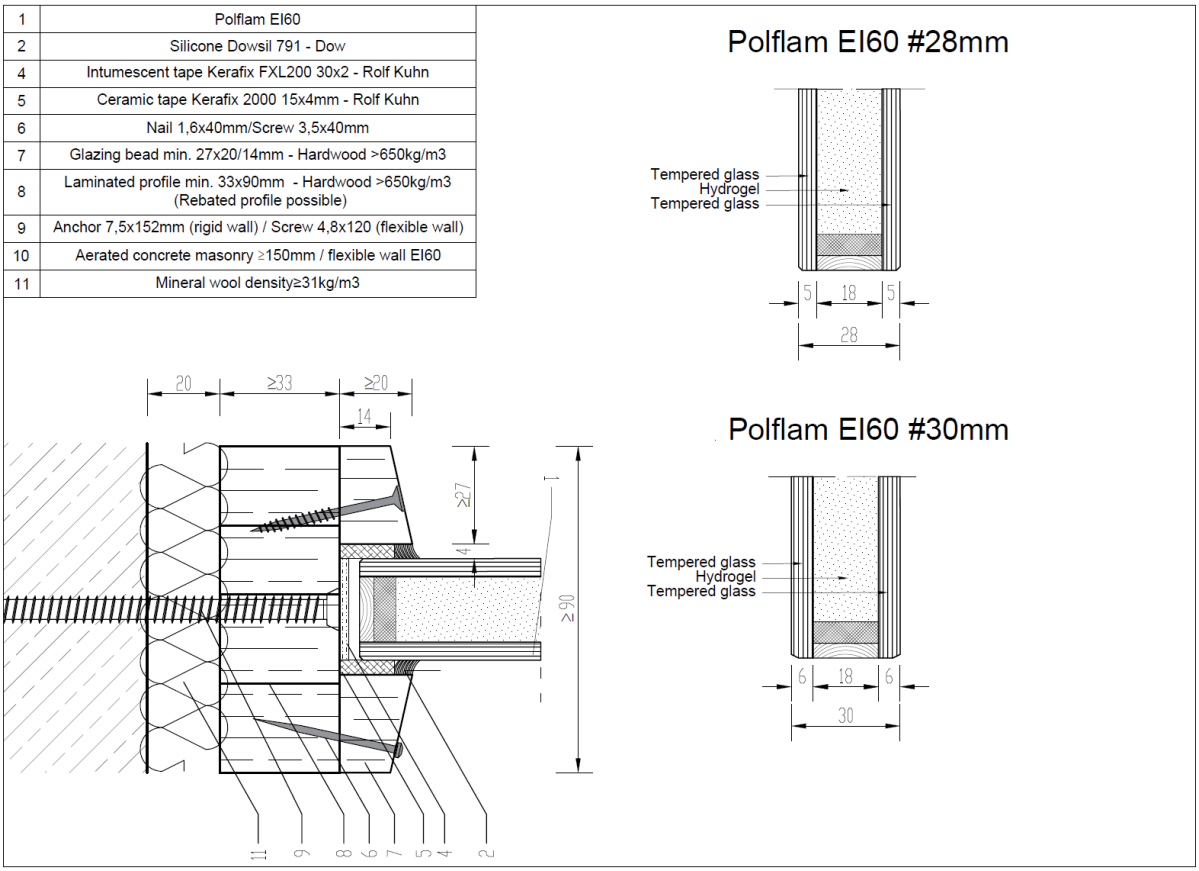

Table 5 – Maximum Permitted Glass Dimensions			
	Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
Landscape	1800 (at 3000 wide)	3600 (at 1500 high)	5.4
Portrait	4200 (at 1500 wide)	1800 (at 3500 high)	6.3

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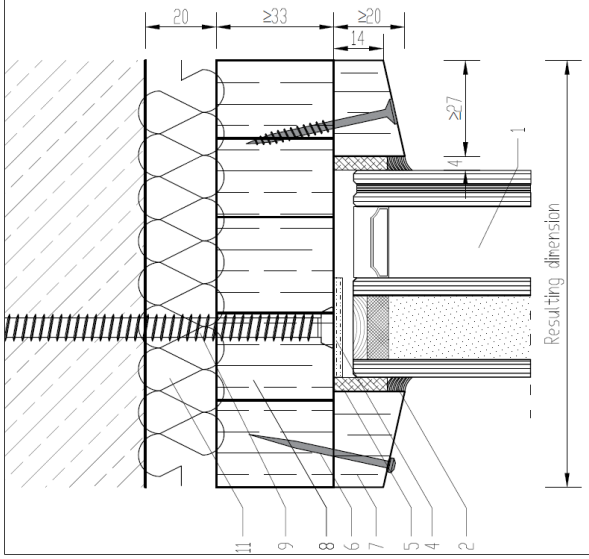
Note: The timber shall be a hardwood with a minimum density of 650kg/m^3.
Note: For pane dimension above 3000mm high by 1500mm wide or 1500mm high by 3000mm wide the glass pane shall be the 30mm thick variant.

Polflam EI60 (28mm thick) IGU (including TGU) in timber framed screens for 60 minutes integrity and insulation

The glass shall be glazed utilising the following basic specification (the below example is for a TGU):

1	Polflam EI60 IGU
2	Silicone Dowsil 791 - Dow
4	Intumescent tape Kerafix FXL200 30x2 - Rolf Kuhn
5	Ceramic tape Kerafix 2000 15x4mm - Rolf Kuhn
6	Nail 1,6x40mm/Screw 3,5x40mm
7	Glazing bead 27x20/14mm - Hardwood >560kg/m3
8	Laminated profile 33x98mm - Hardwood >560kg/m3 (Rebated profile possible)
9	Anchor 7,5x152mm (rigid wall) / Screw 4,8x120 (flexible wall)
10	Aerated concrete masonry ≥120mm / flexible wall EI30
11	Mineral wool density≥31kg/m3



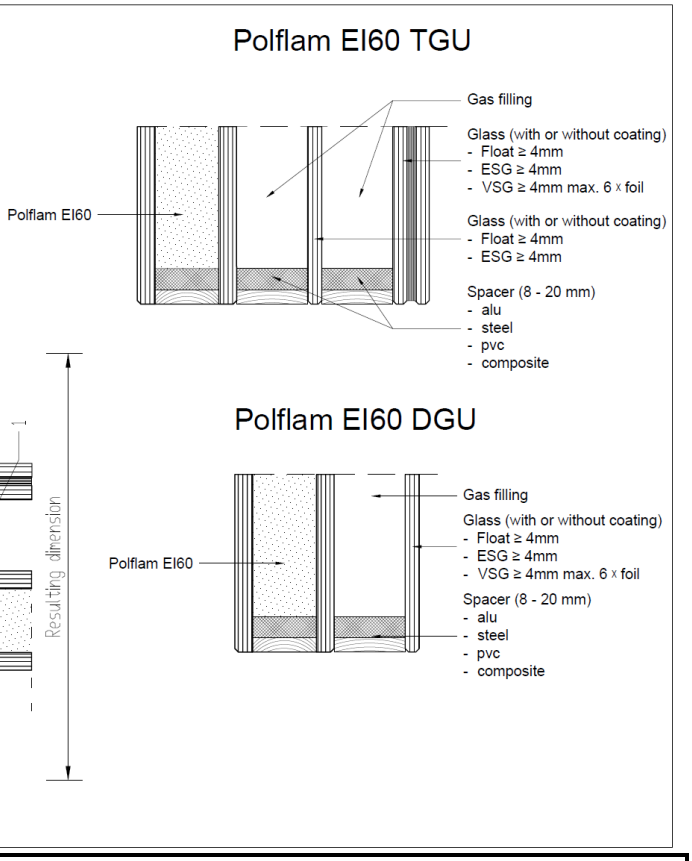


Table 6 – Maximum Permitted Glass Dimensions

	Max Height (mm)	Max Width (mm)	Max Area (m^2)
Landscape	1800 (at 3600 wide)	3600 (at 1800 high)	5.44
Portrait	4200 (at 1800 wide)	1800 (at 4200 high)	6.35

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Polflam sp. z o. o.

Note: The timber shall be a hardwood with a minimum density of 650kg/m^3.
Note: For pane dimension above 3000mm high by 1500mm wide or 1500mm high by 3000mm wide the glass pane shall be the 30mm thick variant.
Note: The spacer bars may be steel, aluminium or TGI.

Polflam EI30 (20mm thick) in steel framed screens for 30 minutes integrity and insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or Warringtonfire assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see example below. The glass shall be glazed into the screen as described in the table below and set on non- combustible setting blocks to determine the correct edge cover.

1	Polflam EI30
2	Glazing bead (402.130Z - Jansen)
3	EPDM Gasket (455.029 - Jansen)
4	Glazing bead screw (450.007- Jansen)
5	EPDM Gasket (455.053 - Jansen)
6	Fire-resistant laminat 4x11.8mm (451.082 - Jansen)
7	Intumescent tape Promaseal LW 20x2mm
8	Frame profile (601.685.2 - Jansen)
9	Screw 6,3x90mm (Flexible wall)
10	Mineral wool density≥31kg/m3
11	Flexible wall

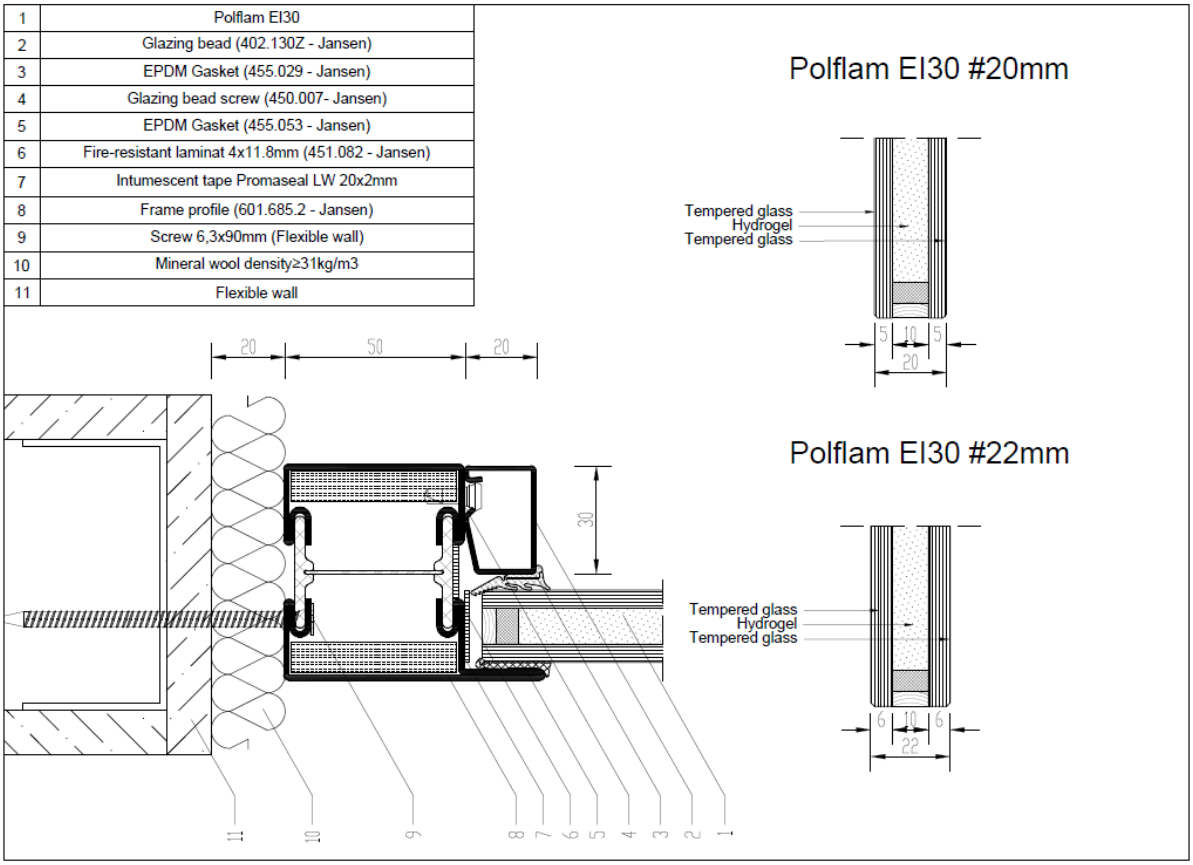

Table 7 – Maximum Permitted Glass Dimensions

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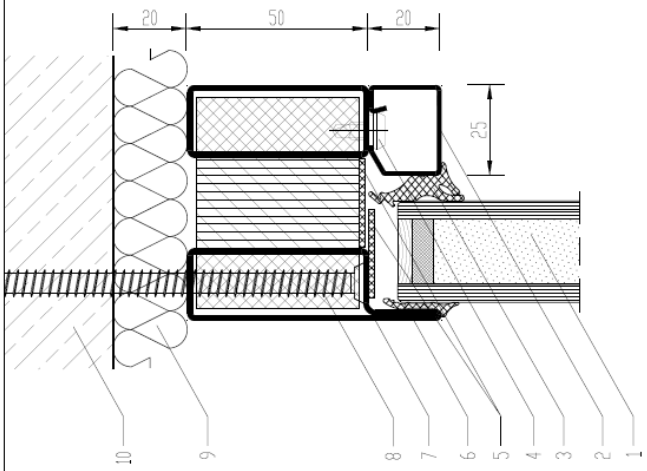
Polflam sp. z o. o.

	Max Height (mm)	Max Width (mm)	Max Area (m^2)
Landscape	1650 (at 3000 wide)	3300 (at 1500 high)	4.95
Portrait	3850 (at 1500 wide)	1650 (at 3500 high)	5.78

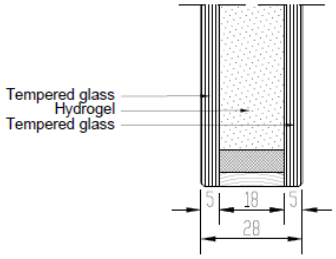
Polflam EI60 (28mm thick) in steel framed screens for 60 minutes integrity and insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or Warringtonfire assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see example below. The glass shall be glazed into the screen as described in the table below and set on non- combustible setting blocks to determine the correct edge cover.

1	Polflam EI60
2	Glazing bead (901 228 - Forster)
3	EPDM Gasket (905 317 - Forster)
4	Glazing bead screw (906 577- Forster)
5	Intumescent tape 24.5x1.5mm (948 000 - Forster)
6	EPDM Gasket (905 312 - Forster)
7	Frame profile (736 851 - Forster)
8	Anchor 7.5x152mm (rigid wall)
9	Mineral wool density≥31kg/m3
10	Aerated concrete masonry ≥200mm



Polflam EI60 #28mm



Polflam EI60 #30mm

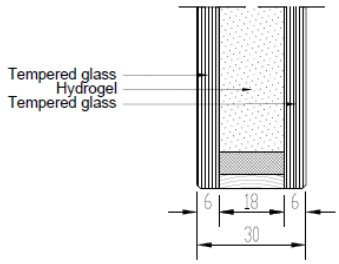


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Table 8 – Maximum Permitted Glass Dimensions		
Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
3525 (at 1496 wide)	1615 (at 3264 high)	5.27

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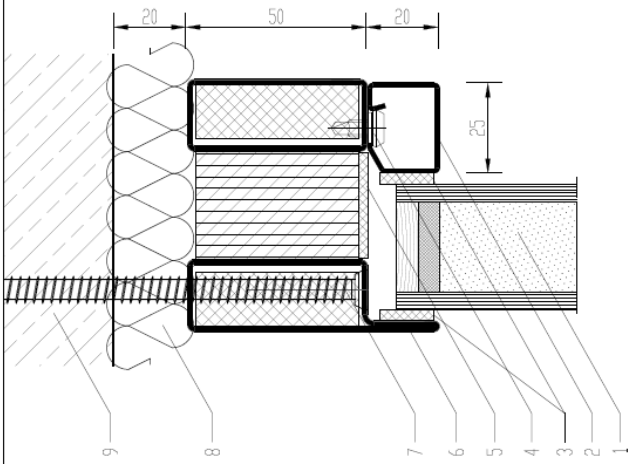
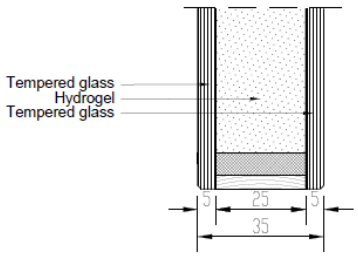
Polflam EI90 (35mm thick) in steel framed screens for 90 minutes integrity and insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or Warringtonfire assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see example below. The glass shall be glazed into the screen as described in the table below and set on non- combustible setting blocks to determine the correct edge cover.

1	Polflam EI90
2	Glazing bead (901 228 - Forster)
3	Distance strip 3x15mm (248 003 - Forster)
4	Glazing bead screw (906 577- Forster)
5	Intumescent tape 29x2.5mm (948 015 - Forster)
6	Frame profile (734 851 - Forster)
7	Anchor 7.5x152mm (rigid wall)
8	Mineral wool density≥31kg/m3
9	Aerated concrete masonry ≥200mm



Polflam EI90 #35mm



Polflam EI90 #37mm

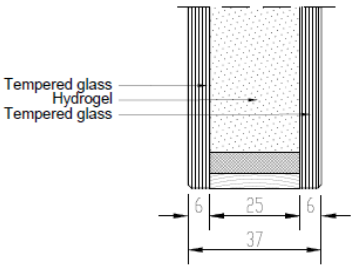


Table 9 – Maximum Permitted Glass Dimensions		
Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
3459 (at 1464 wide)	1551 (at 3264 high)	5.06

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CERTIFICATE No CF6080
Polflam sp. z o. o.

Polflam EI120 (40mm thick) in steel framed screens for 120 minutes integrity and insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or Warringtonfire assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see example below. The glass shall be glazed into the screen as described in the table below and set on non- combustible setting blocks to determine the correct edge cover.

1	Polflam EI120
2	Glazing bead (402.115 Z - Jansen)
3	Glazing bead screw (450.007 - Jansen)
4	Distance strip 6x17mm (451.025 - Jansen)
5	Palusol PL 2x25mm (775.200 - Jansen)
6	Fire-resistant laminat 40x1.8mm (451.083 - Jansen)
7	Frame profile (601.685.C4 - Jansen)
8	Anchor 7,5x152mm (rigid wall)
9	Mineral wool density≥31kg/m3
10	Aerated concrete masonry ≥200mm

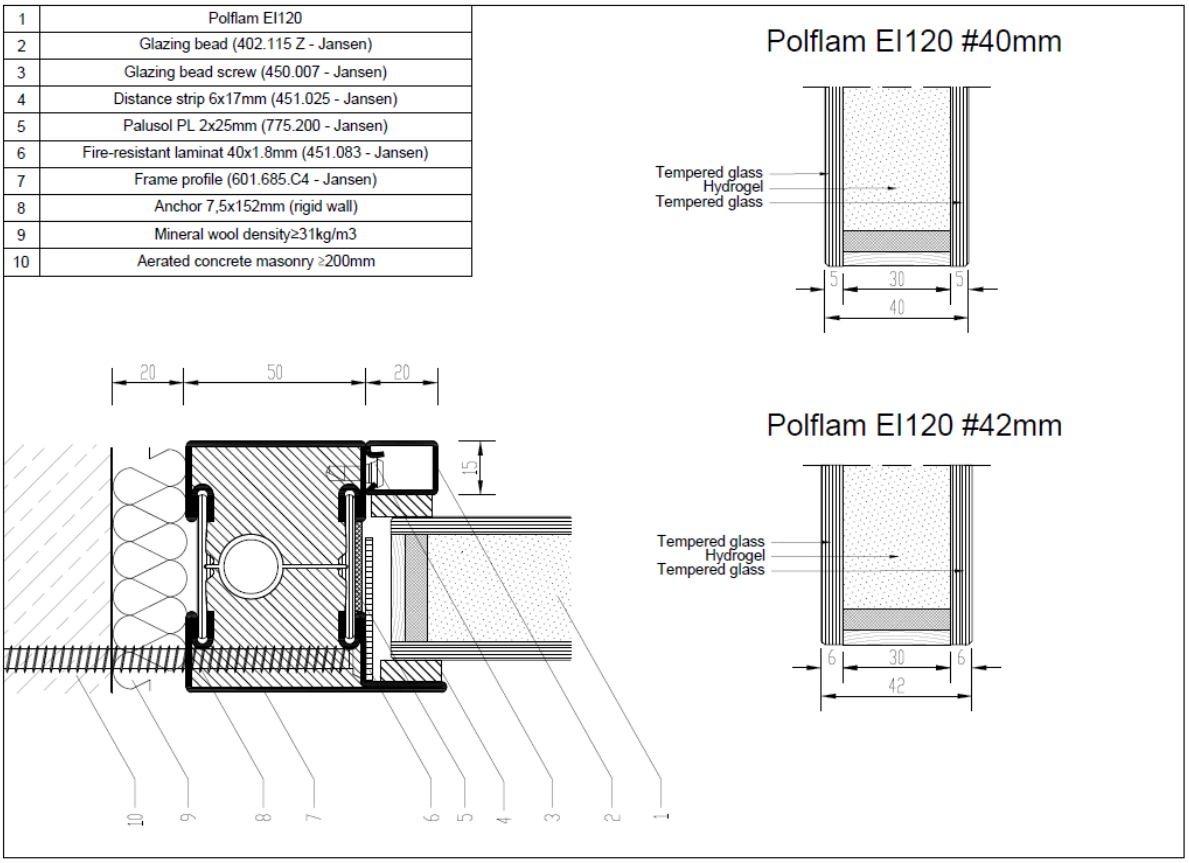

Table 10 – Maximum Permitted Glass Dimensions		
Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
3353 (at 1500 wide)	1545 (at 3256 high)	5.03

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CERTIFICATE No CF6080
Polflam sp. z o. o.

Polflam BR EI30 (30mm thick) butt-jointed system in timber framed screens for 30 minutes integrity and insulation

The glass shall be glazed utilising the following basic specification:

1	Polflam BR EI30
2	Silicone Dowsil 791 - Dow
4	Intumescent tape Kerafix FXL200 20x2 - Rolf Kuhn
5	Ceramic tape Kerafix 2000 15x4mm - Rolf Kuhn
6	Nail 1,6x40mm/Screw 3,5x40mm
7	Glazing bead min. 20x20/14mm - Wood >560kg/m3
8	Laminated profile min. 33x78mm - Wood >560kg/m3 (Rebated profile possible)
9	Anchor 7,5x152mm (rigid wall) / Screw 4,8x120 (flexible wall)
10	Aerated concrete masonry ≥120mm / flexible wall EI30
11	Mineral wool density≥31kg/m3

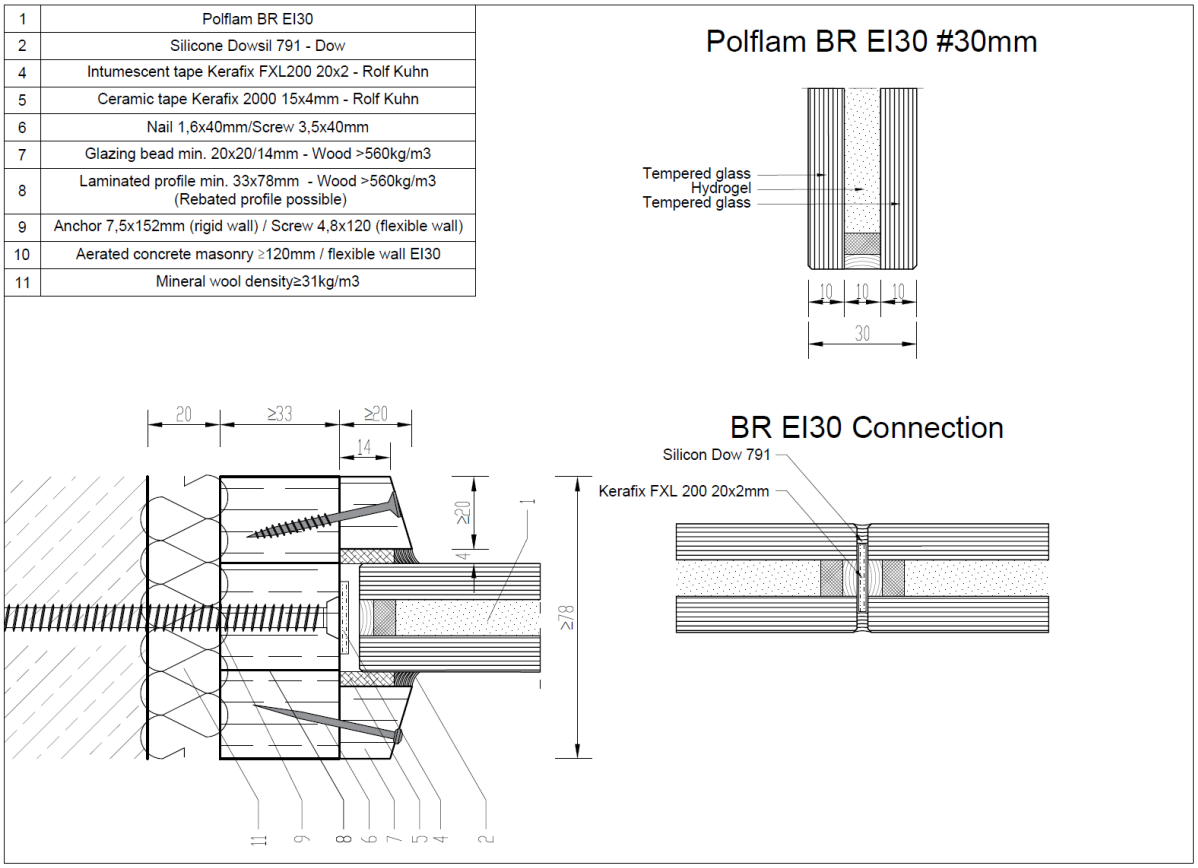

Table 11 – Maximum Permitted Glass Dimensions		
Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
4200 (at 2000 wide)	2400 (at 3500 high)	8.47

Note: The timber shall be hardwood with a minimum density of 560kg/m^3.

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Polflam sp. z o. o.

Polflam BR EI60 (38mm thick) butt-jointed system in timber framed screens for 60 minutes integrity and insulation

The glass shall be glazed utilising the following basic specification:

1	Polflam BR EI60 #38mm
2	Silicone Dowsil 791 - Dow
4	Intumescent tape Kerafix FXL200 30x2 - Rolf Kuhn
5	Ceramic tape Kerafix 2000 15x4mm - Rolf Kuhn
6	Nail 1,6x40mm/Screw 3,5x40mm
7	Glazing bead min. 27x20/14mm - Hardwood >650kg/m3
8	Laminated profile min. 33x100mm - Hardwood >650kg/m3 (Rebated profile possible)
9	Anchor 7,5x152mm (rigid wall) / Screw 4,8x120 (flexible wall)
10	Aerated concrete masonry ≥150mm / flexible wall EI60
11	Mineral wool density≥31kg/m3

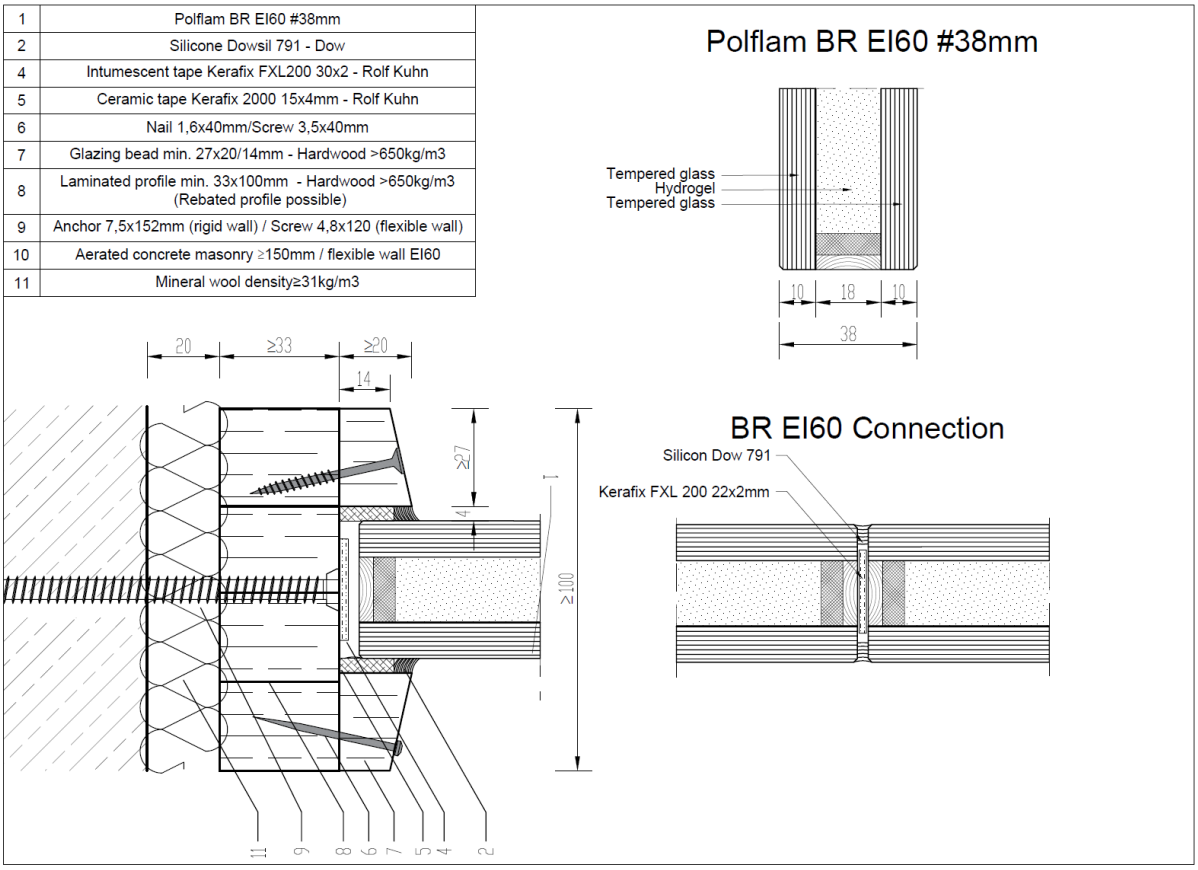

Table 12 – Maximum Permitted Glass Dimensions		
Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
4200 (at 2000 wide)	2400 (at 3500 high)	8.47

Note: The timber shall be hardwood with a minimum density of 650kg/m^3.

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Polflam BR EI30 (30mm thick) butt-jointed system in steel framed screens for 30 minutes integrity and insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or Warringtonfire assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see example below. The glass shall be glazed into the screen as described in the table below and set on non- combustible setting blocks to determine the correct edge cover.

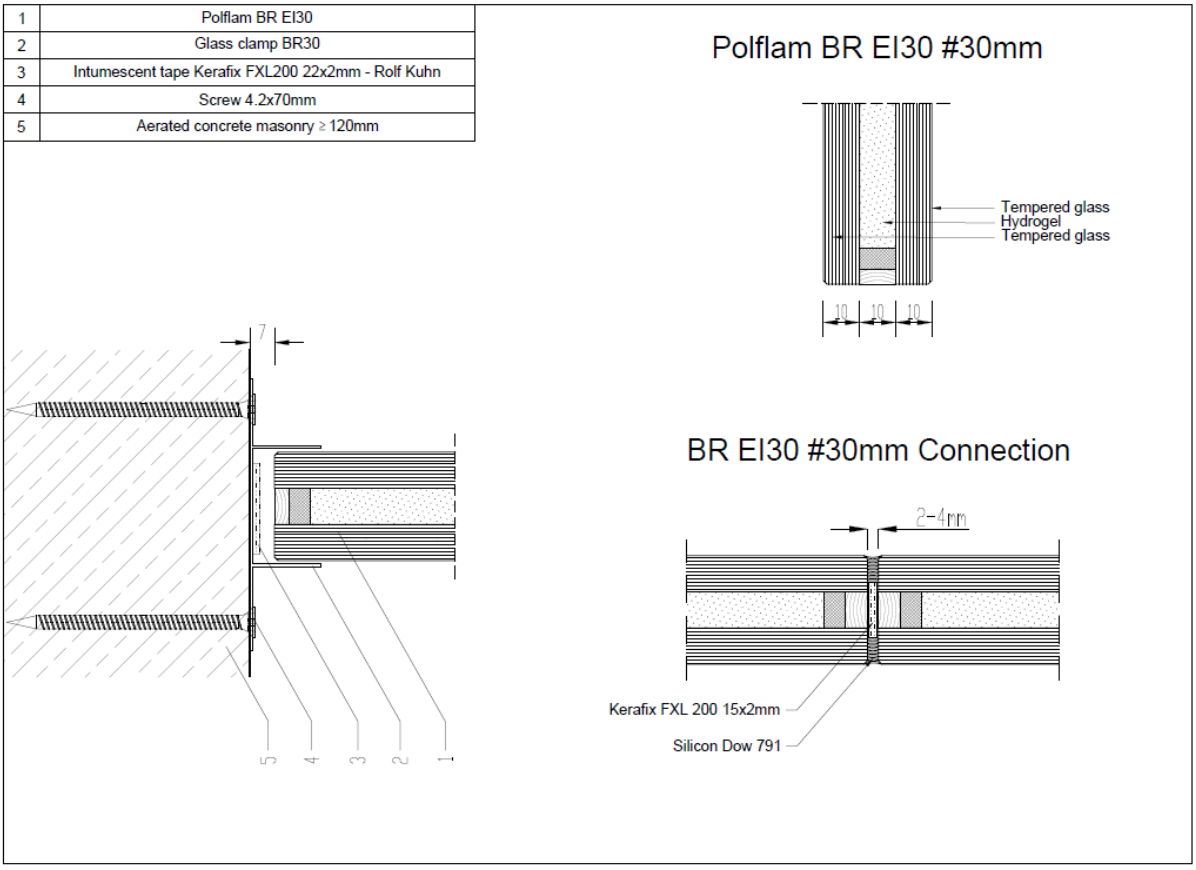

Table 13 – Maximum Permitted Glass Dimensions		
Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
3480 (at 1500 wide)	1740 (at 3000 high)	5.22

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Polflam BR EI30 (30mm thick) IGU butt-jointed system in steel framed screens for 30 minutes integrity and insulation

The glass shall be installed into a previously tested or CERTIFIRE approved insulated framing system (which is covered appropriately by test or Warringtonfire assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see example below. The glass shall be glazed into the screen as described in the table below and set on non-combustible setting blocks to determine the correct edge cover.

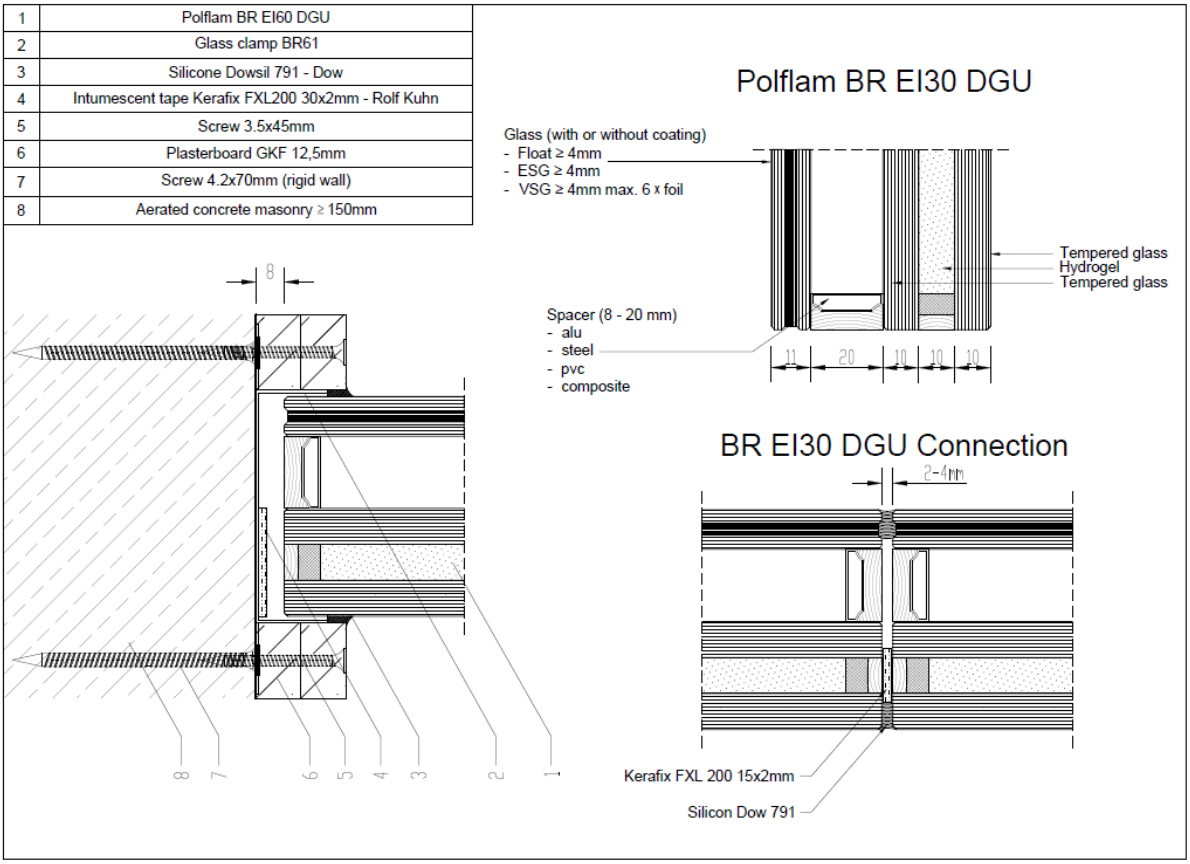

Table 14 – Maximum Permitted Glass Dimensions		
Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
4200 (at 2000 wide)	2400 (at 3500 high)	8.4

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Polflam BR EI60 (35mm thick) butt-jointed system in steel framed screens for 60 minutes integrity and insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or Warringtonfire assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see example below. The glass shall be glazed into the screen as described in the table below and set on non- combustible setting blocks to determine the correct edge cover.

1	Polflam BR EI60 #35mm
2	Dry glazing / wet glazing - System provider solution
4	Frame profile - by example of the profile: Forster Fuego Light EI30 - 736 851
5	Anchor 10x152mm (rigid wall)
10	Aerated concrete masonry ≥150mm
11	Mineral wool density≥31kg/m3

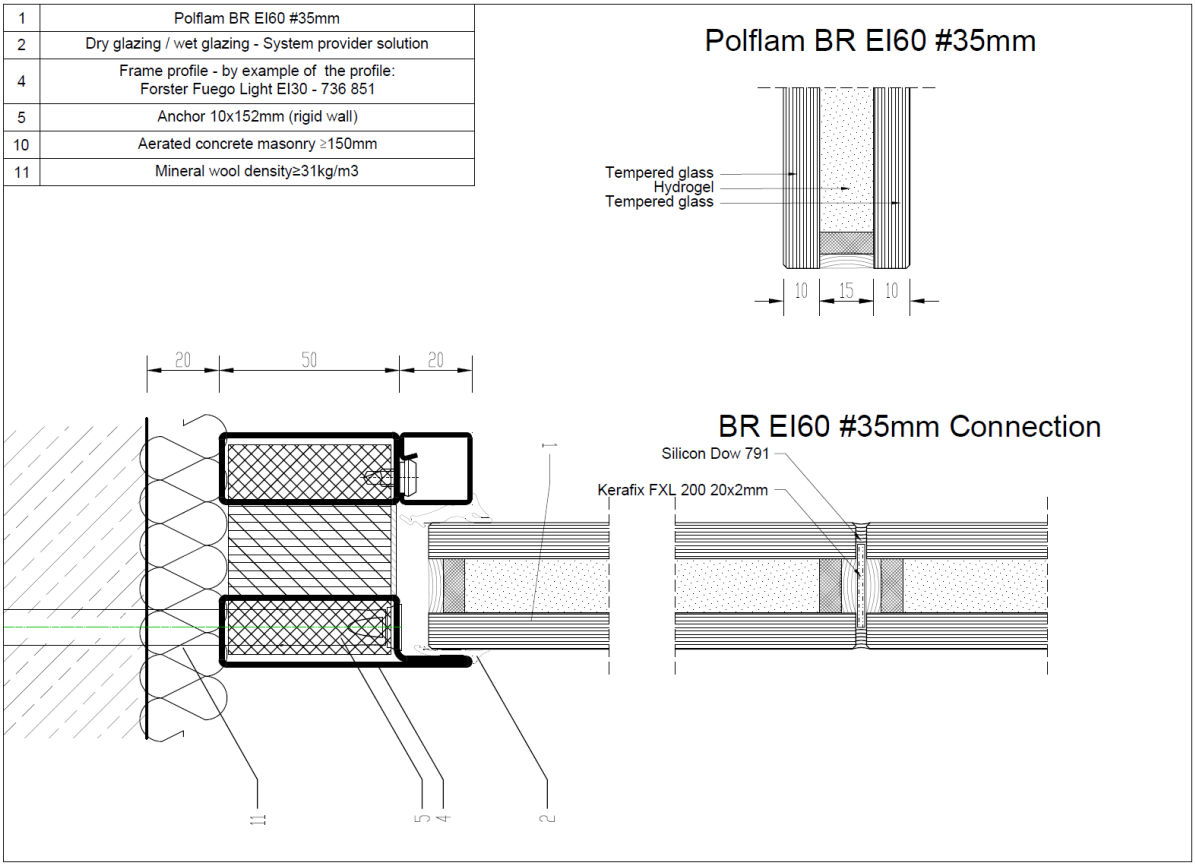

Table 15 – Maximum Permitted Glass Dimensions		
Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
3500 (at 2000 wide)	2000 (at 3500 high)	7.0

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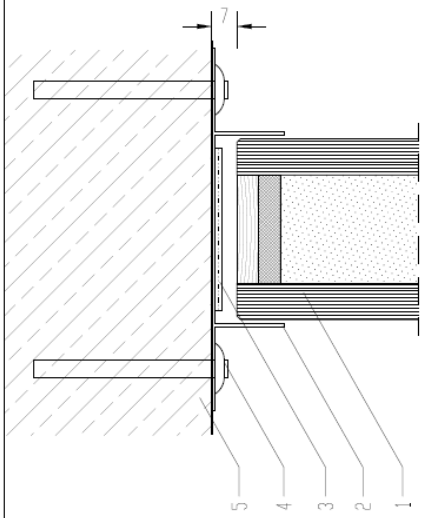
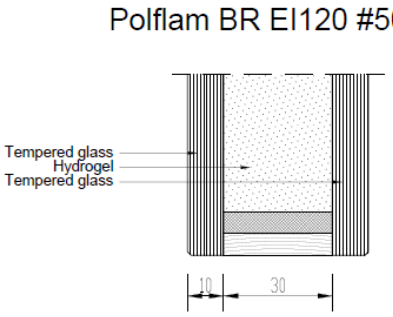
Polflam sp. z o. o.

Polflam BR EI120 (50mm thick) butt-jointed system in steel framed screens for 120 minutes integrity and insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or Warringtonfire assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see example below. The glass shall be glazed into the screen as described in the table below and set on non- combustible setting blocks to determine the correct edge cover.

1	Polflam BR EI120
2	Glass clamp BR50
3	Intumescent tape Kerafix FXL200 45x2mm - Rolf Kuhn
4	Concrete nail 6x100mm
5	Aerated concrete masonry ≥ 150mm





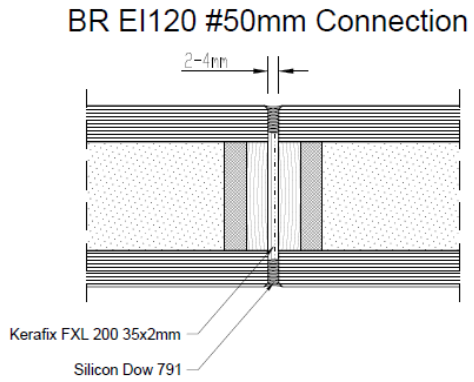


Table 16 – Maximum Permitted Glass Dimensions		
Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
2750 (at 4000 wide)	4400 (at 2500 high)	11.00

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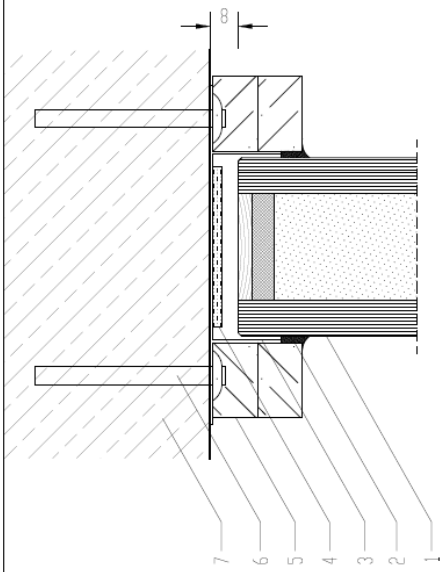
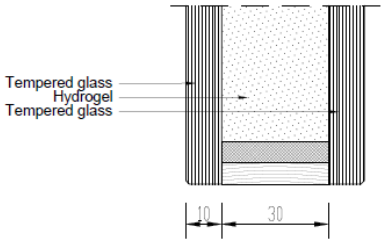
Polflam BR EI120 (50mm thick) butt-jointed system in steel framed screens for 120 minutes integrity and insulation

The glass shall be installed into a previously tested or CERTIFIRE approved insulated framing system (which is covered appropriately by test or Warringtonfire assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see example below. The glass shall be glazed into the screen as described in the table below and set on non-combustible setting blocks to determine the correct edge cover.

1	Polflam BR EI120
2	Silicone Dowsil 791 - Dow
3	Glass clamp BR50
4	Intumescent tape Kerafix FXL200 30x2mm - Rolf Kuhn
5	Plasterboard GKF 12,5mm
6	Concrete nail 6x100mm
7	Screw 4.2x70mm (rigid wall)
8	Aerated concrete masonry ≥ 240mm



Polflam BR EI120 #50mm



BR EI120 #50mm Connection

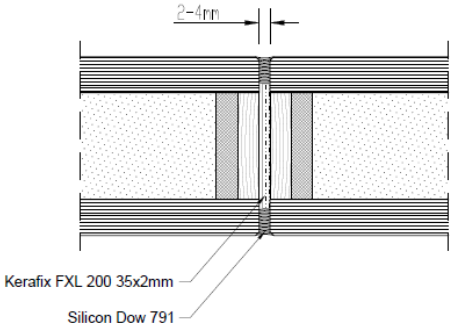


Table 17 – Maximum Permitted Glass Dimensions		
Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
4400 (at 2000 wide)	2200 (at 4000 high)	8.80

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Polflam BR EI30 (30mm thick) curved butt-jointed system in steel framed screens for 30 minutes integrity and insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing insulated system (which is covered appropriately by test or Warringtonfire assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see example below. The glass shall be glazed into the screen as described in the table below and set on non-combustible setting blocks to determine the correct edge cover.

1	Polflam BR EI30 Curved
2	Silicone Dowsil 791 - Dow
3	Intumescent tape Kerafix FXL200 30x2mm - Rolf Kuhn
4	Glass clamp BR30
5	Screw 4.2x70mm
6	Plasterboard GKF 12,5mm
7	Aerated concrete masonry ≥240mm

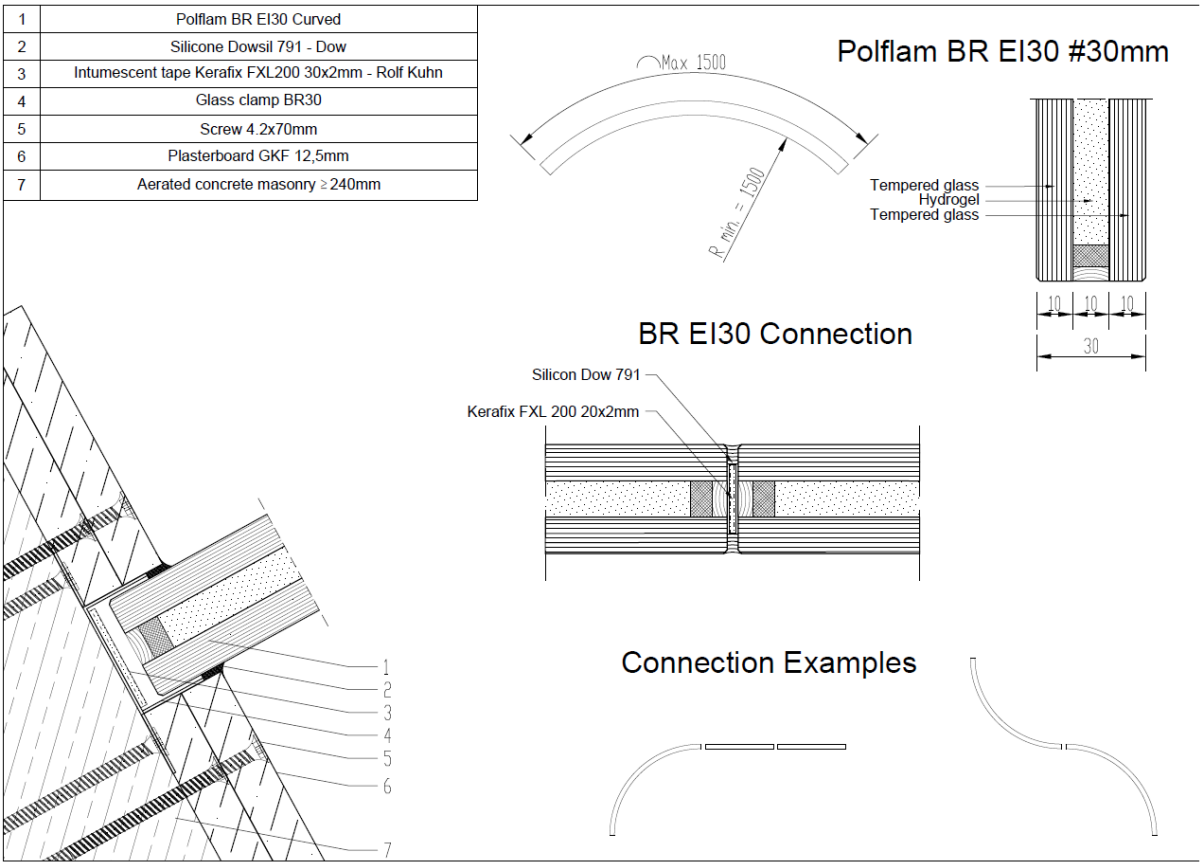

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Table 18 – Maximum Permitted Glass Dimensions		
Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
3000 (at 1439 wide)	1439 (at 3000 high)	4.32

Note: The curvature of the glass may give a radii of 1500mm only.
Note: The glass is approved curving towards and away from the heating conditions and may be utilised curving in both directions in a single run of panes (thus forming a wave). They shall not be utilised curving in the same direction (i.e. forming an arc or circle).
Note: The glazed screen may be added to by the use of additional straight panes (at the dimensions given on page 17 of this appraisal) or by the addition of further curved panes (at the dimensions given above).
Note: When connecting a curved glass to a straight glass, the joint must be the same width on both faces i.e. the straight piece of glass may not join at an angle.

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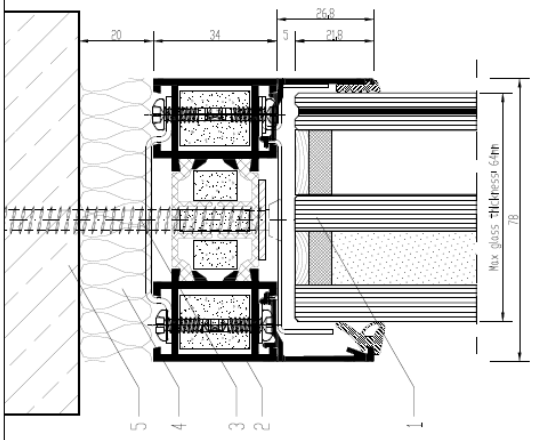
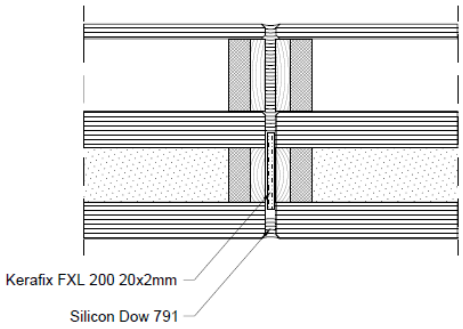
Polflam BR EI60 (35mm thick) IGU butt-jointed system in Aluprof MB-78EI aluminium framed screens for 60 minutes integrity and insulation

For this application the following conditions shall apply:
The glass shall be glazed within an Aluprof MB-78 EI aluminium framed screen as detailed diagrammatically below. Please consult the frame manufacturer for full specification of framing system.

1	POLFLAM BR EI60 IGU - Thickness up to 64mm
2	Aluprof MB-78 EI60 Frame profile - by example on K518142X
3	Screw -Concrete screw min. Ø7,5x132mm
4	Mineral wool - density min 31kg/m³
5	Low density aerated concrete wall min 150mm



BR EI60 IGU Connection



Polflam BR EI60 DGU

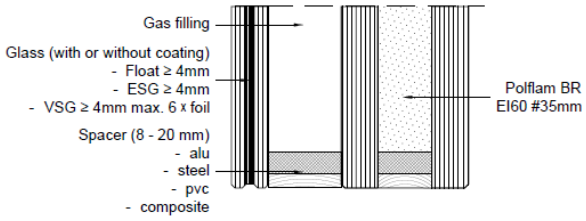


Table 19 – Maximum Permitted Glass Dimensions		
Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
3690 (at 1500 wide)	1845 (at 3000 high)	5.54

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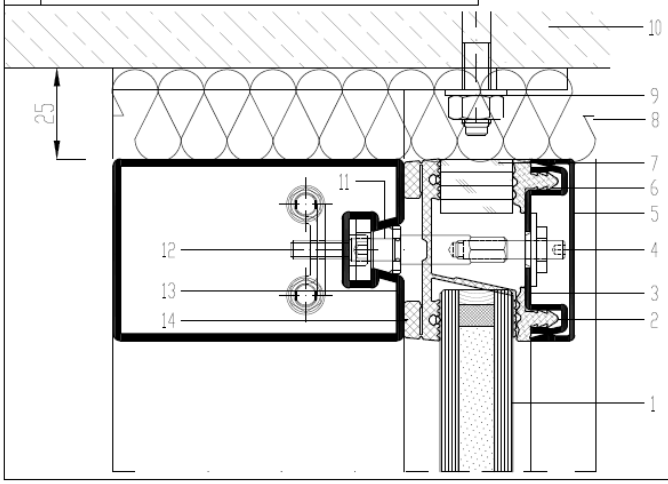
Note: The fire resistant pane, of the butt-jointed IGU, must be oriented away from the fire risk side.

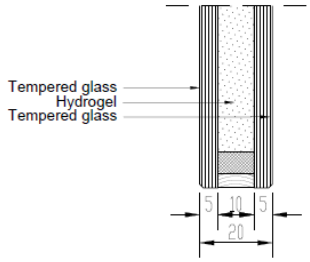
Polflam EI30 (20mm thick) in Jansen VISS steel curtain walling systems for 30 minutes integrity and insulation

For this application the following conditions shall apply:
The glass shall be glazed within a Jansen VISS steel curtain walling system as detailed diagrammatically below. Please consult the frame manufacturer for full specification and approved scope of curtain walling systems.

1	Polflam EI30
2	EPDM Gasket (455.589 - Jansen)
3	Cover section 50mm (400.802 - Jansen)
4	Set screw (452.595 - Jansen)
5	Cover section 50mm (407.860 - Jansen)
6	EPDM Gasket (455.588 - Jansen)
7	Promatec-H 20x15mm
8	Mineral wool density≥31kg/m3
9	Anchor 8x120 (rigid wall)
10	Aerated concrete masonry ≥200mm
11	Supporting bolt (452.587 - Jansen)
12	Connecting spigot (452.033 - Jansen)
13	Profile 50x80mm (76.696 - Jansen)
14	EPDM Gasket (455.558 - Jansen)



Polflam EI30 #20mm



Polflam EI30 #32mm

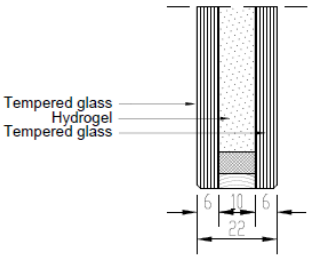


Table 20 – Maximum Permitted Glass Dimensions			
	Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
Landscape	1500 (at 3156 wide)	3156 (at 1500 high)	4.74
Portrait	3200	1700	5.44

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	(at 1700 wide)	(at 3200 high)	

Note: Direction of exposure is limited to the side opposite to the pressure plates.

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Polflam EI60 (28mm thick) IGU (including TGU) in Jansen VISS steel curtain walling systems for 60 minutes integrity and insulation

For this application the following conditions shall apply:
The glass shall be glazed within a Jansen VISS steel curtain walling system as detailed diagrammatically below. Please consult the frame manufacturer for full specification and approved scope of curtain walling systems.

1	Polflam EI30
2	EPDM Gasket (455.509 - Jansen)
3	Cover section 50mm (400.867.Z - Jansen)
4	Cover section 50mm (407.860 - Jansen)
5	Fire protection laminate 7.2x1.8mm (451.081 - Jansen)
6	EPDM Gasket (455.508 - Jansen)
7	Promatec-H 68,3x15mm
8	Mineral wool density≥31kg/m3
9	Anchor 8x120 (rigid wall)
10	Aerated concrete masonry ≥200mm
11	Fire proof anchor (452.429 - Jansen)
12	Connecting spigot (452.033 - Jansen)
13	Profile 50x80mm (76.696 - Jansen)
14	EPDM Gasket (455.550 - Jansen)

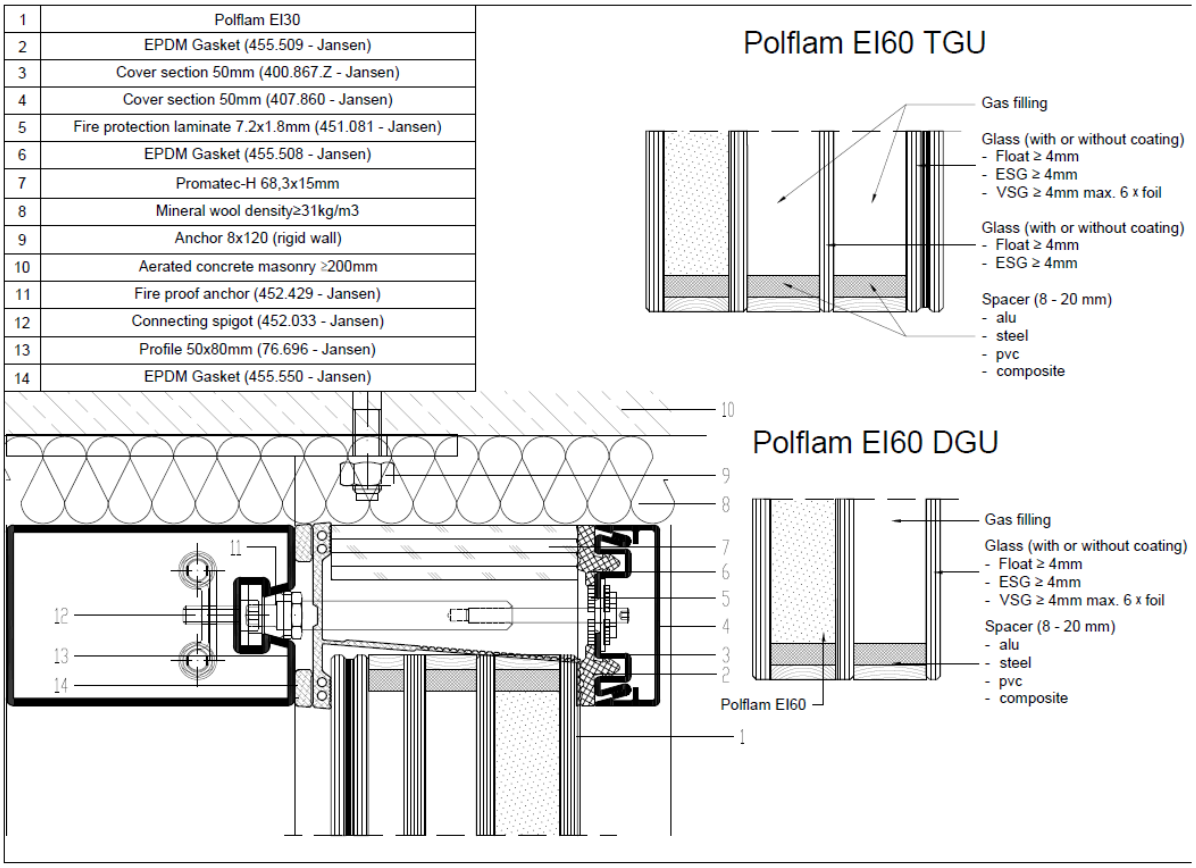

Table 21 – Maximum Permitted Glass Dimensions			
	Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
Landscape	1770 (at 3156 wide)	3724 (at 1500 high)	5.59
Portrait	3776 (at 1700 wide)	2006 (at 3200 high)	6.42

Note: The direction of exposure is limited to the side opposite to the pressure plates.

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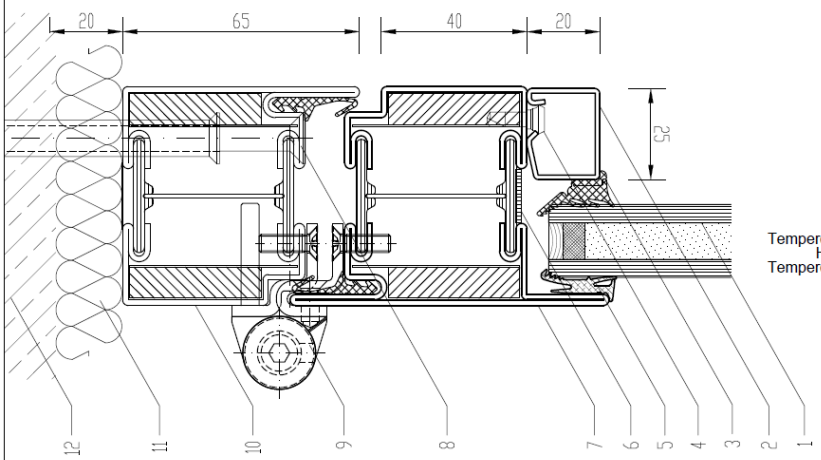
Note: The direction of exposure is limited to the Polflam FR glass to the non-fire side.

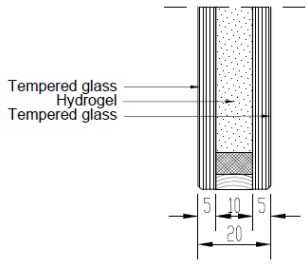
Polflam EI30 (20mm thick) in steel framed single-leaf door systems for 30 minutes integrity and insulation

This certification is applicable to the glass and glazing only; consult the test reports and approvals of the system provider to ensure that the application is within tested or approved scope.

1	Polflam EI30
2	Glazing bead (402.125 - Jansen)
3	EPDM Gasket (455.028 - Jansen)
4	Glazing bead screw (450.007- Jansen)
5	EPDM Gasket (455.027 - Jansen)
6	Fire-resistant laminat 14x1.8mm (451.083 - Jansen)
7	Door leaf profile (630.014.2 - Jansen)
8	Anchor 10x160mm (rigid wall)
9	Hinges (555.570 - Jansen)
10	Frame profile (630.013.2 - Jansen)
11	Mineral wool density≥31kg/m3
12	Aerated concrete masonry ≥150mm



Polflam EI30 #20mm



Polflam EI30 #22mm

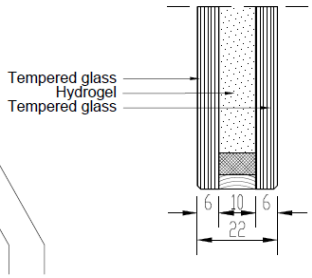


Table 22 – Maximum Permitted Glass Dimensions		
Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
3346 (at 1398 wide)	1607 (at 2910 high)	4.68

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Polflam sp. z o. o.

Polflam EI30 (20mm thick) IGU in steel framed single-leaf door systems for 30 minutes integrity and insulation

This certification is applicable to the glass and glazing only; consult the test reports and approvals of the system provider to ensure that the application is within tested or approved scope.

1	Polflam EI30 DGU
2	Glazing bead (402.112 - Jansen)
3	EPDM Gasket (455.029 - Jansen)
4	Glazing bead screw (450.007- Jansen)
5	Fire-resistant laminat 14x1.8mm (451.083 - Jansen)
6	EPDM Gasket (455.053 - Jansen)
7	Door leaf profile (630.014.2 - Jansen)
8	Anchor 10x160mm (rigid wall)
9	Hinges (555.570 - Jansen)
10	Frame profile (601.113.2 - Jansen)
11	Mineral wool density≥31kg/m3
12	Aerated concrete masonry ≥150mm

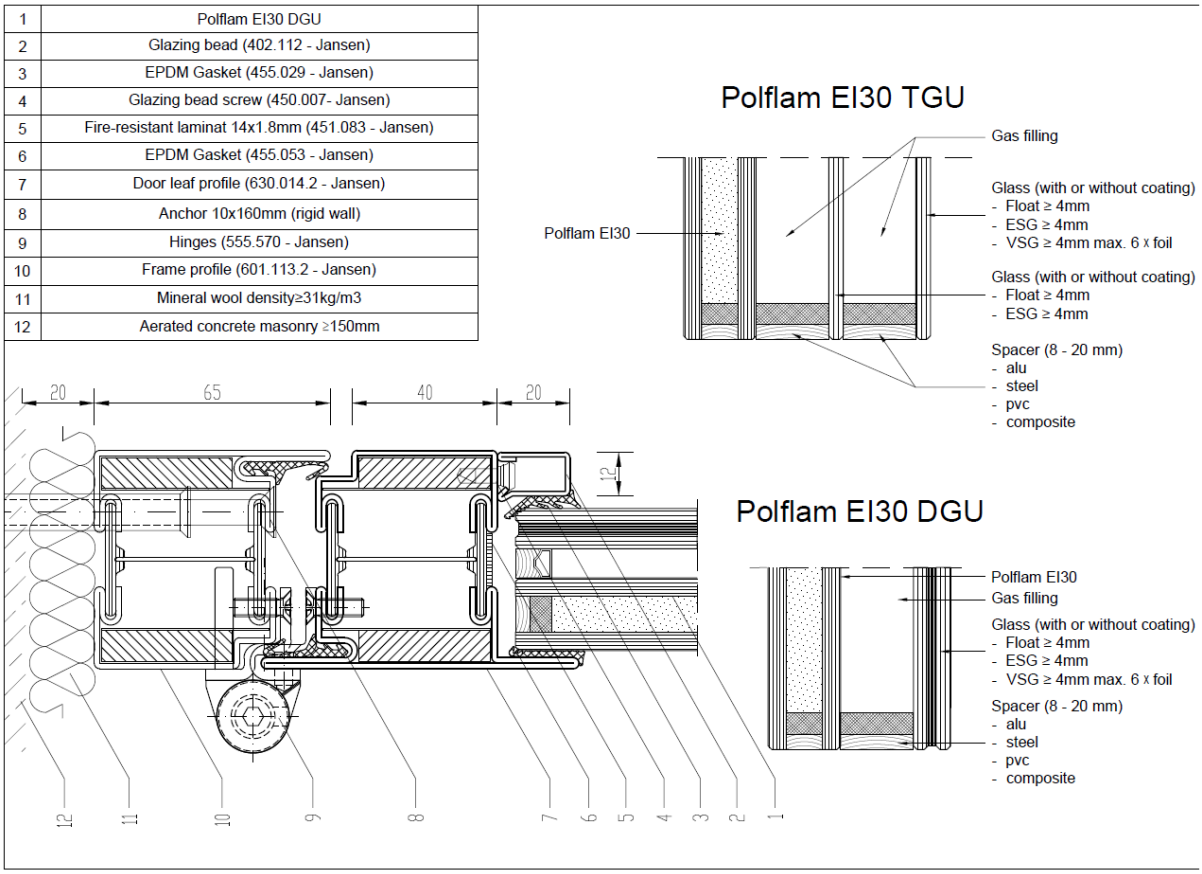

Table 23 – Maximum Permitted Glass Dimensions		
Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
3346 (at 1398 wide)	1607 (at 2910 high)	4.68

Note: The direction of exposure is limited to the Polflam FR glass to the non-fire side

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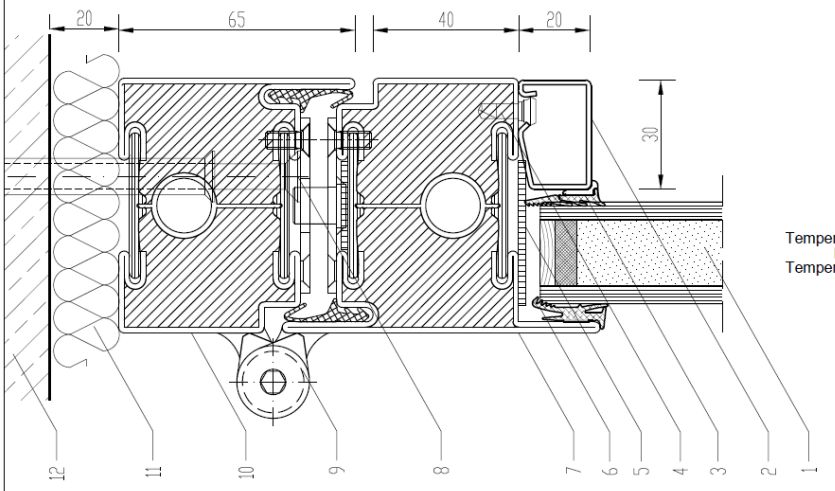
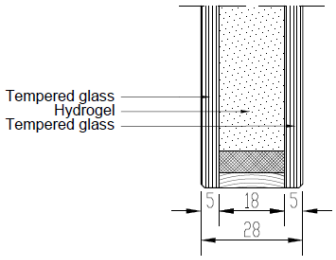
Polflam EI60 (28mm thick) in steel framed single-leaf door systems for 60 minutes integrity and insulation

This certification is applicable to the glass and glazing only; consult the test reports and approvals of the system provider to ensure that the application is within tested or approved scope.

1	Polflam EI60
2	Glazing bead (402.130 - Jansen)
3	EPDM Gasket (455.029 - Jansen)
4	Glazing bead screw (450.007 - Jansen)
5	Fire-resistant laminat 40x1.8mm (451.083 - Jansen)
6	EPDM Gasket (455.027 - Jansen)
7	Door leaf profile (630.114.C4 - Jansen)
8	Anchor 10x160mm (rigid wall)
9	Hinges (555.570 - Jansen)
10	Frame profile (630.113.C4 - Jansen)
11	Mineral wool density≥31kg/m3
12	Vertically perforated brick ≥175mm



Polflam EI60 #28mm



Polflam EI60 #30mm

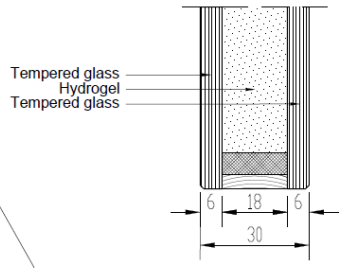


Table 24 – Maximum Permitted Glass Dimensions		
Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
3346 (at 1398 wide)	1607 (at 2910 high)	4.68

First Issued: 28th November 2022
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Valid to: 27th November 2027

CERTIFICATE No CF6080
Polflam sp. z o. o.

Polflam EI60 (28mm thick) IGU in steel framed single-leaf door systems for 60 minutes integrity and insulation

This certification is applicable to the glass and glazing only; consult the test reports and approvals of the system provider to ensure that the application is within tested or approved scope.

1	Polflam EI60 DGU
2	Glazing bead (402.112 - Jansen)
3	EPDM Gasket (455.028 - Jansen)
4	Glazing bead screw (450.007 - Jansen)
5	Fire-resistant laminat 40x1.8mm (451.083 - Jansen)
6	EPDM Gasket (455.053 - Jansen)
7	Door leaf profile (630.114.C4 - Jansen)
8	Anchor 10x160mm (rigid wall)
9	Hinges (555.570 - Jansen)
10	Frame profile (630.113.C4 - Jansen)
11	Mineral wool density≥31kg/m3
12	Vertically perforated brick ≥175mm

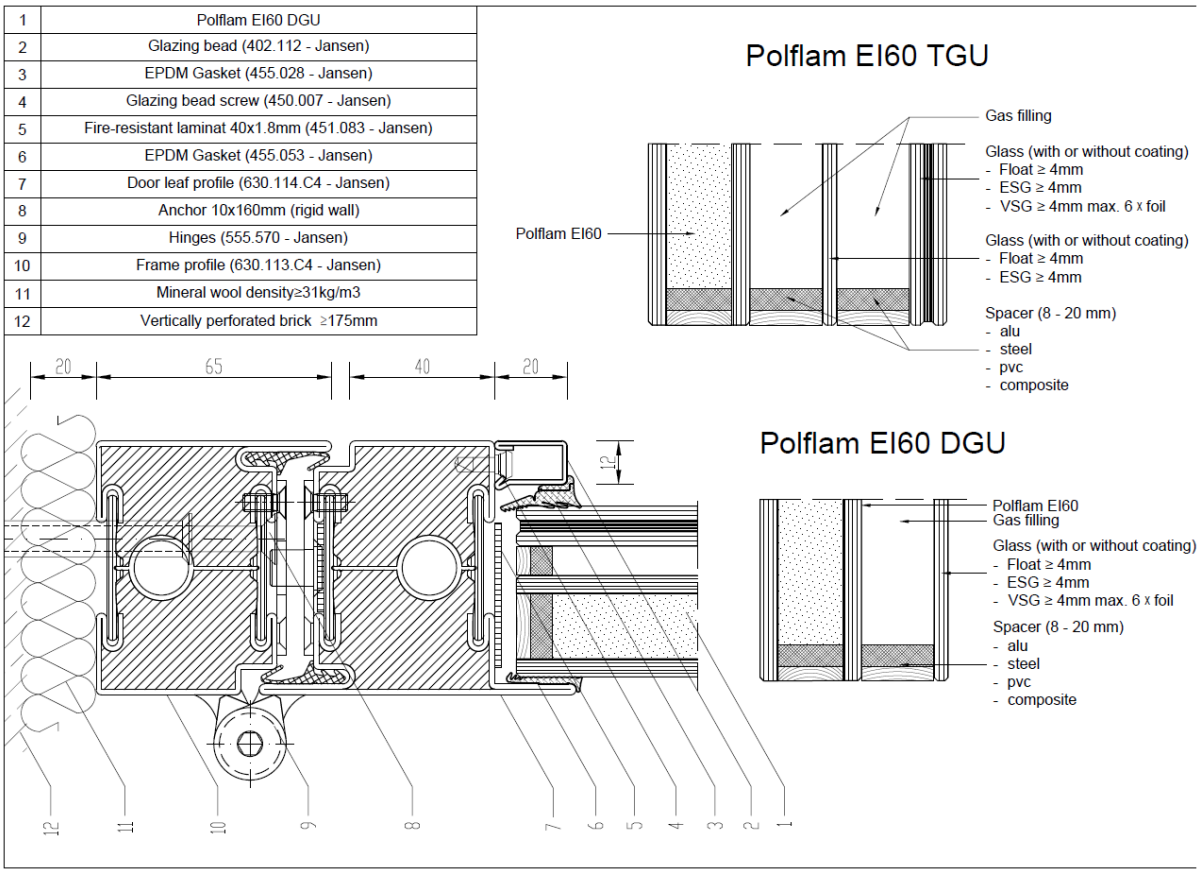

Table 25 – Maximum Permitted Glass Dimensions		
Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
3346 (at 1398 wide)	1607 (at 2910 high)	4.68

Note: The direction of exposure is limited to the Polflam FR glass to the non-fire side

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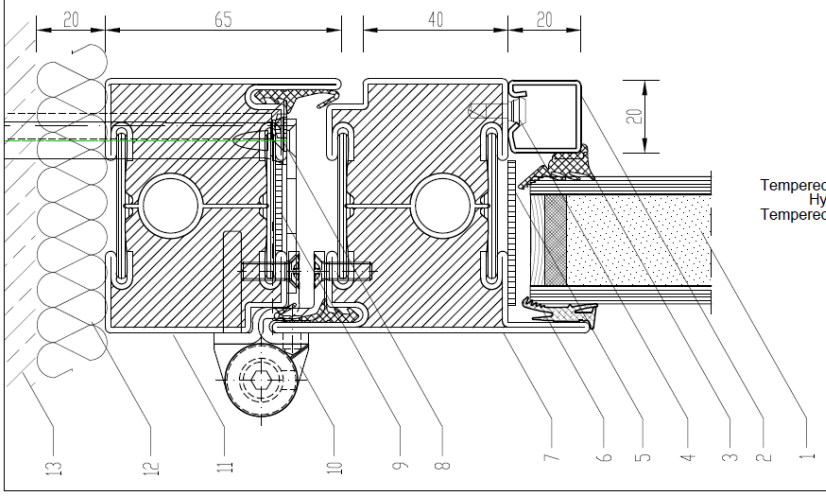
CERTIFICATE No CF6080
Polflam sp. z o. o.

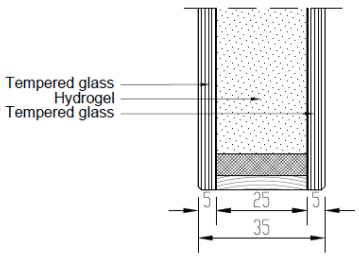
Polflam EI90 (35mm thick) in steel framed single-leaf door systems for 90 minutes integrity and insulation

This certification is applicable to the glass and glazing only; consult the test reports and approvals of the system provider to ensure that the application is within tested or approved scope.

1	Polflam EI90
2	Glazing bead (402.120 - Jansen)
3	EPDM Gasket (455.028 - Jansen)
4	Glazing bead screw (450.007 - Jansen)
5	Fire-resistant laminat 40x1.8mm (451.083 - Jansen)
6	EPDM Gasket (455.027 - Jansen)
7	Door leaf profile (630.114.C4 - Jansen)
8	Anchor 10x160mm (rigid wall)
9	Fire-resistant laminat 24.4x1.8mm (451.084 - Jansen)
10	Hinges (555.570 - Jansen)
11	Frame profile (630.113.C4 - Jansen)
12	Mineral wool density≥31kg/m3
13	Aerated concrete masonry ≥175mm



Polflam EI90 #35mm



Polflam EI90 #37mm

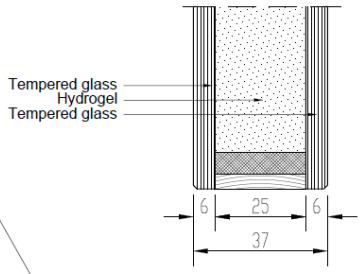


Table 26 – Maximum Permitted Glass Dimensions		
Max Height (mm)	**Max Width (mm)**	**Max Area (m^2)**
3346 (at 1398 wide)	1607 (at 2910 high)	4.68

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