



CERTIFICATE OF APPROVAL

No CF 811C

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

VETROTECH SAINT-GOBAIN INTERNATIONAL

Bernstrasse 43, CH-3175 Flamatt, Switzerland

Tel: +41 313368181 Fax: +41 313368119

Website: www.vetrotech.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

Contraflam Fire Resisting Glass

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: 23rd October 2017
Revised: 24th June 2023
Valid to: 6th November 2027





CERTIFICATE No CF811C

VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

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.

This Certificate of Approval relates to the fire resistance of Contraflam glass when used in the following applications, as defined in BS 476: Part 22: 1987 subject to the undermentioned conditions

Glass	Application	Integrity - (mins)	Insulation - (mins)	Page No.
Contraflam Door Lite (11 mm thick)	Steel Doors	90	15	7
	Steel Doors	120	15	8
	Steel Doors	180	0	9
	Timber Doors	30	15	10
	Timber Doors	90	15	11
	Timber Doors	90	15	12
Contraflam Lite 30 (13 mm minimum)	Steel Doors	30	0	13
	Timber Doors	30	15	14
	Aluminium Doors	30	0	15
Contraflam Lite 30 Climaplus (13 mm minimum)	Steel Doors	30	15	16
	Timber Doors	30	15	17
Contraflam Lite 60 (14 mm minimum)	Steel Doors	60	0	18
	Timber Doors	60	0	19
Contraflam Lite 90 (14 mm minimum)	Steel Doors	90	0	20
Contraflam Lite 120 (14 mm minimum)	Steel Doors	120	0	21
Contraflam 30 (16 mm minimum)	Steel Doors	30	30	22
	Steel Doors	60	30	23
	Steel Doors	90	30	24
	Steel Doors	120	30	25
	Timber Doors	30	30	26
	Aluminium Doors	30	30	27
	Aluminium Doors	30	30	28
	Aluminium Doors	30	30	29
Contraflam 30 Climaplus (16 mm minimum)	Steel Doors	30	30	30
	Steel Doors	90	30	31
	Steel Doors	120	30	32
Contraflam 30-2 (20 mm minimum)	Steel Doors	30	30	33
	Timber Doors	30	30	34
	Aluminium Doors	30	30	35



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CONTRAFLAM FIRE RESISTING GLASS

Glass	Application	Integrity - (mins)	Insulation - (mins)	Page No.
Contraflam 60-3 (27 mm minimum)	Steel Doors	60	60	36
	Timber Doors	60	60	37
	Aluminium Doors	60	60	38
Contraflam 60-3 Climaplast (27 mm minimum)	Steel Doors	60	60	39
Contraflam 90-4 (40 mm minimum)	Steel Doors	90	90	40
	Aluminium Doors	90	90	41
	Aluminium Doors	90	90	42
Contraflam 120-6 (62 mm)	Steel Doors	120	120	43



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CONTRAFLAM FIRE RESISTING GLASS

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.

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

General Requirements

All maximum height, width and area dimensions relate to the glass pane size.

There is no restriction to the direction of exposure for the glass i.e. the glass is symmetrical. Orientation may, however, be restricted by the requirements of a non-symmetrical framing system or certain double glazed unit specifications (Climaplus).

The edge cover to each pane of Contraflam Glass shall be minimum 15 mm, unless stated otherwise, as detailed for each specific application on the following pages.

The Contraflam glass family is approved in a nominal thickness from 11 to 80 mm (depending on application).

Applied Films

Adhesive/adherent polyester/polyethylene terephthalate (PET) or polyvinyl Chloride (PVC) films may be applied to the free vision area of a glazed element. They may have a thickness between 25 and 250 µm.

Glazing Bars

Glazing bars, flashings, trims (timber, steel, alu) etc may be applied to the glass surface using 3M '4941' VHB double sided tape. The glazing bars must not be fixed to the perimeter beads.

Note:

As indicated steel or aluminium profiled door systems shall have suitable test evidence (applicable systems from Jansen or Forster for example), or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions.

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CONTRAFLAM FIRE RESISTING GLASS

The following glass types may incorporate a minimum 9 mm STADIP 44.2 laminated glass layer in substitution for the 5 mm SECURIT glass layer, used on one face of the composition of the Contraflam glass. Furthermore; the outer face of this laminated glass may, optionally, be a patterned glass. The above is subject to restrictions as defined on the applicable page of this certificate, details are given on the applicable pages:

	Contraflam Lite 30	Contraflam Lite 60
Contraflam Lite 90	Contraflam Lite 120	Contraflam 30
Contraflam 30-2		Contraflam 60-3
Contraflam 90-4	Contraflam 120-6	

Where insulation performance is required for steel or aluminium profiled door applications, care must be taken to ensure the steel or aluminium profile has test data proving its insulation performance for the required duration using insulating glasses.

Glazing pocket (aperture) liner, Mann McGowan Pyrostrip 300 SA can be substituted for one of the following liners:

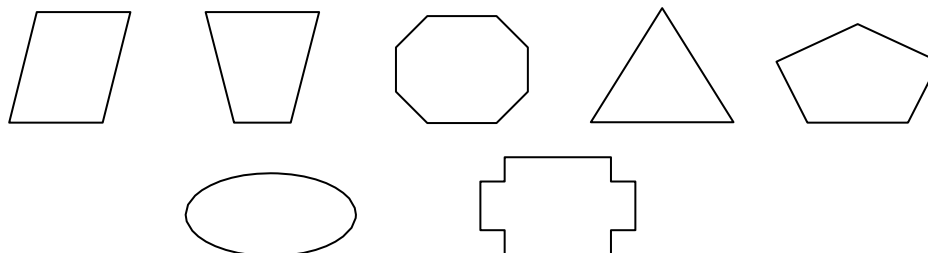
- Kuhn Flexpan 200
- Odice Flexilodice

Mann McGowan Pyrotape CF tape can be substituted for one of the following ceramic fibre tapes:

- Kuhn Kerafix 2000
- Hodgson Sealants Firetape Ceramic

Shapes:

It is also acceptable to include the Contraflam glasses in shaped apertures, i.e. circles, ovals, arches, quadrants, etc (examples detailed below) within timber and steel door sets (subject to limitations in the glazing system). For rectilinear apertures angles between adjoining perimeter beads should not be less than 45°. Where shaped apertures are included in timber doorsets, only finger jointed glazing beads are acceptable. Maximum linear dimensions or areas as approved should not be exceeded.





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CONTRAFLAM FIRE RESISTING GLASS

Insulating Glass Units (Climaplus)

Where Insulating Glass Units (Climaplus) are approved; the non-fire, counter pane may be a float glass, a toughened glass, patterned glass or a laminated glass (including laminated patterned glass) unless stated otherwise on the relevant page.

The fire resistant pane of an IGU construction can be used as a single glazed pane in any previously fire tested or CERTIFIRE approved system.

Subject to product availability, any single pane, fire resistant, glass listed in this certificate may be used as the fire resistant pane of a fire rated IGU. The IGU may be glazed in to any previously fire tested or CERTIFIRE approved system but is limited in size to those of the listed fire rated glass.

Contraflam Climaplus units may incorporate internal blind systems or Georgian bars where required.

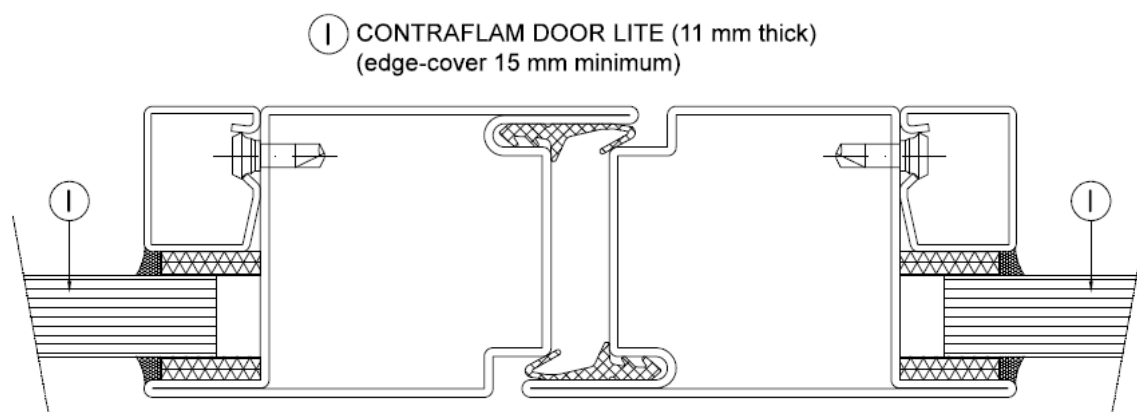
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VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam Door Lite Glass in steel doors for periods of 90 minutes integrity and 15 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam Door Lite glass shown in the table below, when used in conjunction with the above system:

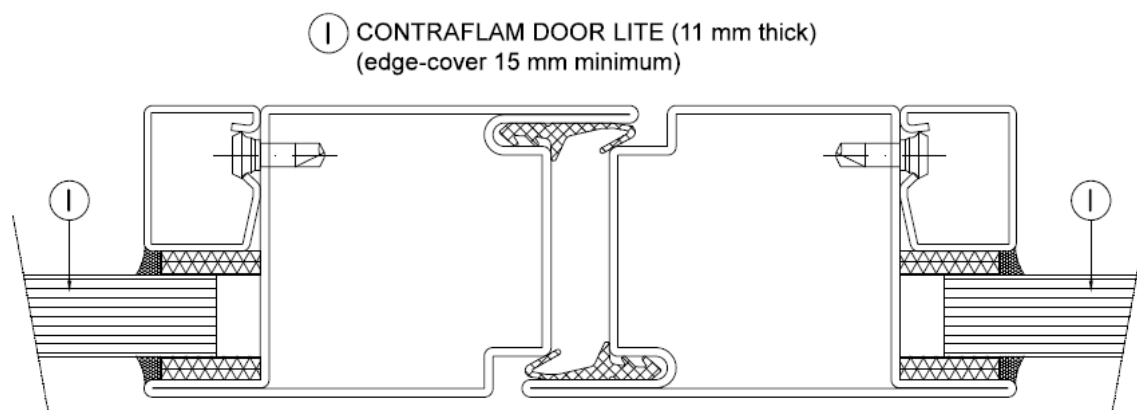
Table 1 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
1100 (at 2197 high)	2200 (at 1045 wide)	2.87

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CONTRAFLAM FIRE RESISTING GLASS

Contraflam Door Lite Glass in steel doors for periods of 120 minutes integrity and 15 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam Door Lite glass shown in the table below, when used in conjunction with the above system:

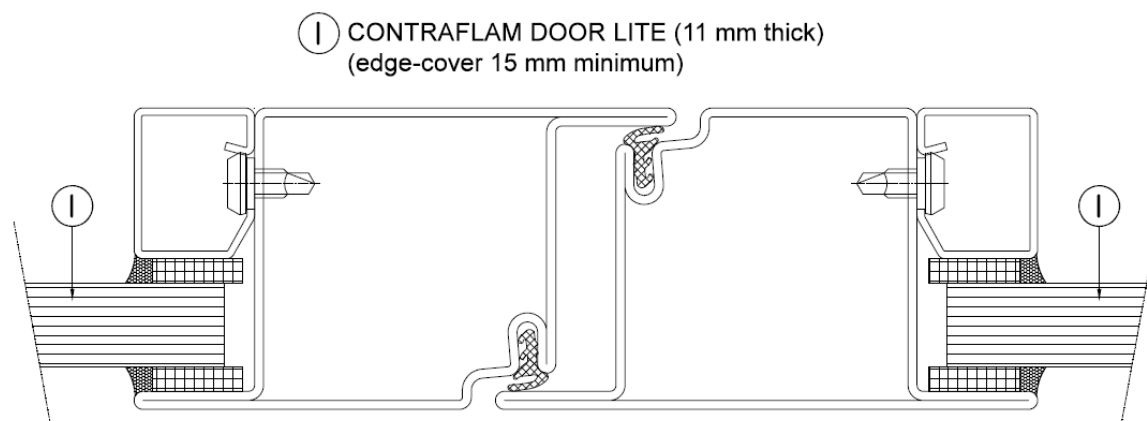
Table 2 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
1045 (at 2197 high)	2197 (at 1045 wide)	2.29

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CONTRAFLAM FIRE RESISTING GLASS

Contraflam Door Lite Glass in steel doors for periods of 180 minutes integrity

The glass shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam Door Lite glass shown in the table below, when used in conjunction with the above system:

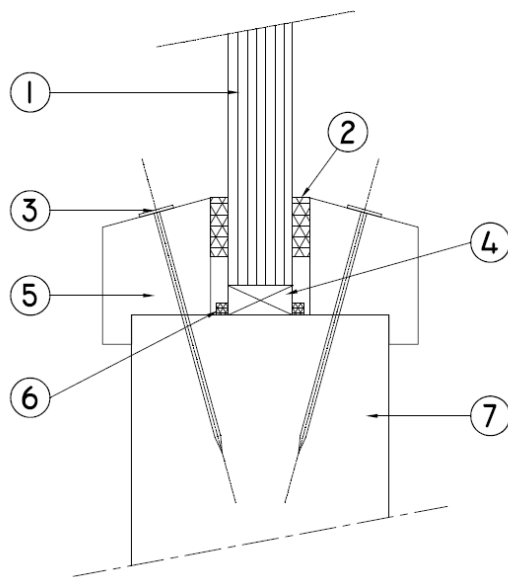
Table 3 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
934 (at 2025 high)	2025 (at 934 wide)	1.89

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CONTRAFLAM FIRE RESISTING GLASS

Contraflam Door Lite Glass in timber doors for periods of 30 minutes integrity and 15 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved timber based doorset (which is covered appropriately by test or assessment evidence). The glass shall be set on non-combustible setting blocks to determine the correct edge cover.



- ① CONTRAFLAM DOOR LITE (11 mm thick)
(edge-cover 15 mm)
- ② Mann McGowan Pyroglaze 30 Tape 10 x 3 mm
- ③ Steel pins or screws 40 mm long,
at 150 mm centres
- ④ Non-combustible / hardwood setting blocks
glass thickness x 5 x 80 mm (w x h x d)
(2 pieces per glass, on the bottom only)
- ⑤ 25 x 18.5 mm (h x w) hardwood glazing beads
minimum density 655 kg/m³ (including 5 x 5 mm
(h x w) bolection with approximately 20° chamfer)
- ⑥ Glazing pocket liner, Mann McGowan
Pyrostrip 300 SA, Section 15 x 2 mm
- ⑦ Nominally 44 mm thick FD30 door leaf

The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam Door Lite glass shown in the table below, when used in conjunction with the above system:

Table 4 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
1060 (at 1976 high)	2094 (at 1000 wide)	2.09

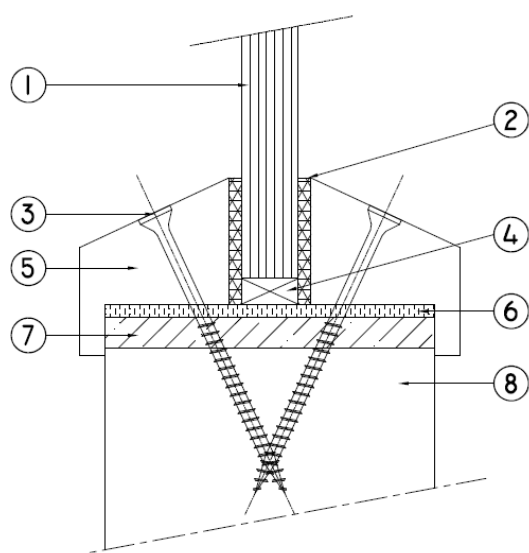
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CONTRAFLAM FIRE RESISTING GLASS

Contraflam Door Lite Glass in timber doors for periods of 90 minutes integrity and 15 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved timber based doorset (which is covered appropriately by test or assessment evidence). The glass shall be set on non-combustible setting blocks to determine the correct edge cover.



- ① CONTRAFLAM DOOR LITE (11 mm thick)
(edge-cover 20 mm)
- ② Sealmaster FireGlaze tape 25 x 2.5 mm
- ③ No.8 x 3" long steel screws at 150 mm centres
(25° to glass)
- ④ Non-combustible / hardwood setting blocks
glass thickness x 5 x 25 mm (d x h x w)
(2 pieces per glass, on the bottom only)
- ⑤ 35 x 29 mm (h x w) sapele glazing beads (including
10 x 5 mm (h x w) bolection with 25° chamfer)
- ⑥ Glazing pocket liner, Sealmaster FireGlaze
Tape 64 x 2.5 mm
- ⑦ Sapele aperture lining strip 64 x 6 mm, affixed using PU
adhesive and steel pins 40 x 1.6 mm at 150mm centres
- ⑧ Nominally 64 mm thick FD90 door leaf

The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam Door Lite glass shown in the table below, when used in conjunction with the above system:

Table 5 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
288 (at 1600 high)	1840 (at 250 wide)	0.46

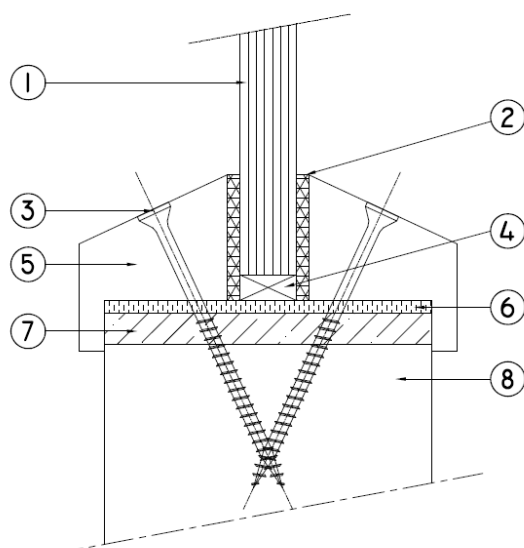
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CONTRAFLAM FIRE RESISTING GLASS

Contraflam Door Lite Glass in timber doors for periods of 90 minutes integrity and 15 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved timber based doorset (which is covered appropriately by test or assessment evidence). The glass shall be set on non-combustible setting blocks to determine the correct edge cover.



- ① CONTRAFLAM DOOR LITE (11 mm thick)
(edge-cover 20 mm)
- ② Intumescent Seals ISL60 Plus tape 25 x 5.8 mm
- ③ No.8 x 3" long steel screws at 150 mm centres
(25° to glass)
- ④ Non-combustible / hardwood setting blocks
glass thickness x 5 x 25 mm (d x h x w)
(2 pieces per glass, on the bottom only)
- ⑤ 35 x 27 mm (h x w) sapele glazing beads (including
10 x 5 mm (h x w) bolection with 25° chamfer)
- ⑥ Glazing pocket liner, Intumescent Seals
Therm-A-Line Tape 63 x 2 mm
- ⑦ Sapele aperture lining strip 64 x 6 mm, affixed using PU
adhesive and steel pins 40 x 1.6 mm at 150mm centres
- ⑧ Nominally 64 mm thick FD90 door leaf

The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam Door Lite glass shown in the table below, when used in conjunction with the above system:

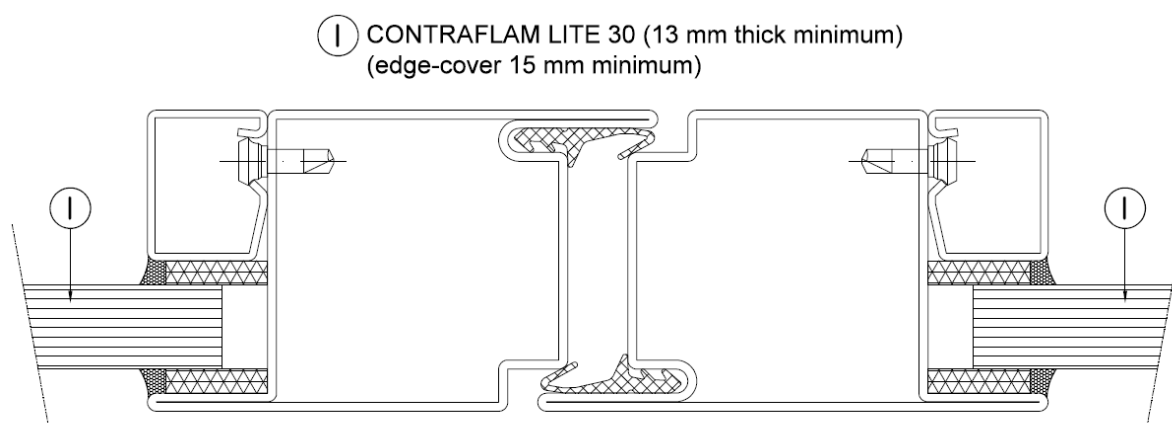
Table 6 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
285 (at 1600 high)	1824 (at 250 wide)	0.45

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CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 30 Glass in steel doors for periods of 30 minutes integrity

The glass shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam Lite 30 glass shown in the table below, when used in conjunction with the above system:

Table 7 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
1625 (at 2400 high)	3000 (at 1300 wide)	3.9
1280 (at 2448 high)	3060 (at 1024 wide)	3.13

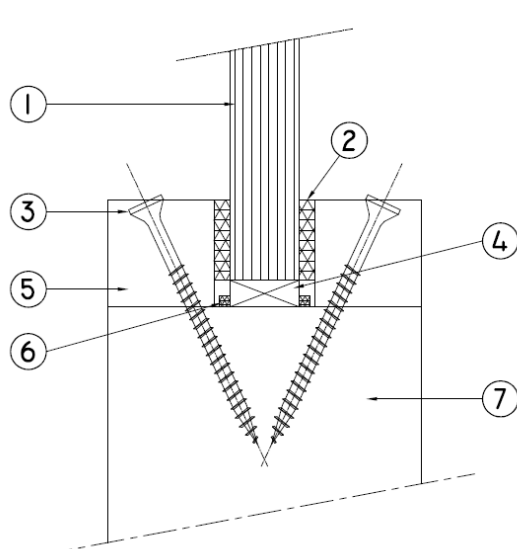
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CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 30 Glass in timber doors for periods of 30 minutes integrity and 15 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved timber based doorset (which is covered appropriately by test or assessment evidence). The glass shall be set on non-combustible setting blocks to determine the correct edge cover.



- ① CONTRAFLAM LITE 30 (13 mm thick minimum)
(edge-cover 15 mm)
- ② Mann McGowan Pyrotape CF 15 x 3 mm & Neutral Silicone or Mann McGowan Pyroglaze 30 Tape 10 x 3 mm
- ③ 4.5 x 50 mm long steel screws at 150 mm centres
(20° - 30° to glass)
- ④ Non-combustible / hardwood setting blocks
glass thickness x 5 x 80 mm (w x h x d)
(2 pieces per glass, on the bottom only)
- ⑤ 20.5 x 20 mm (h x w) hardwood glazing beads,
minimum density 730 kg/m³
- ⑥ Glazing pocket liner, Mann McGowan
Pyrostrip 300 SA, Section 15 x 2 mm
- ⑦ Nominally 44 mm thick FD30 door leaf

The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam Lite 30 glass shown in the table below, when used in conjunction with the above system:

Table 8 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
1625 (at 2400 high)	3000 (at 1300 wide)	3.90

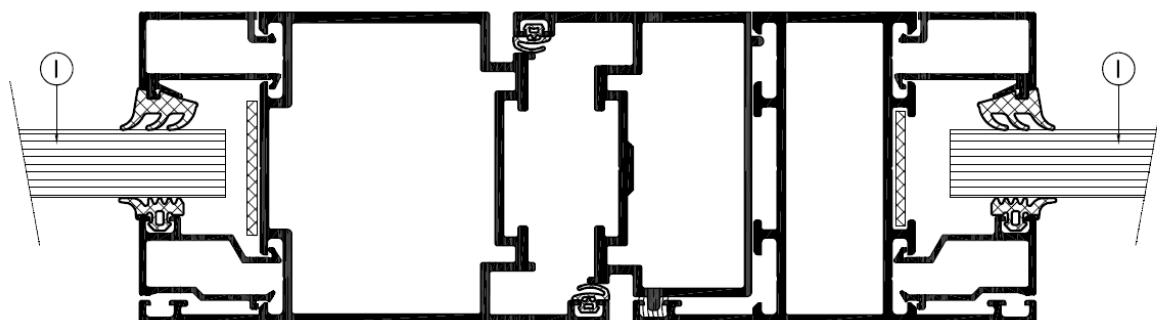
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CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 30 Glass in Schüco ADS 65 NI FR30 aluminium doors for periods of 30 minutes integrity

The glass shall be glazed within a previously fire tested or CERTIFIRE approved aluminium based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.

① CONTRAFLAM LITE 30 (13 mm thick minimum)
(edge-cover 18 mm minimum)



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam Lite 30 glass shown in the table below, when used in conjunction with the above system:

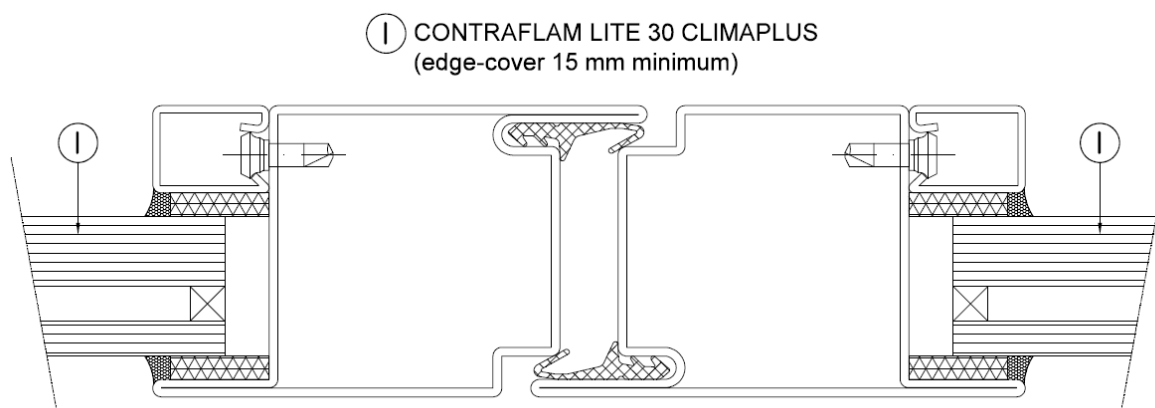
Table 9 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
1625 (at 2400 high)	3000 (at 1300 wide)	3.90

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CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 30 Climaplus Glass in steel doors for periods of 30 minutes integrity and 15 minutes insulation

The IGU shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The IGU shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of IGU's comprising at least one pane of Contraflam Lite 30 glass shown in the table below, when used in conjunction with the above system:

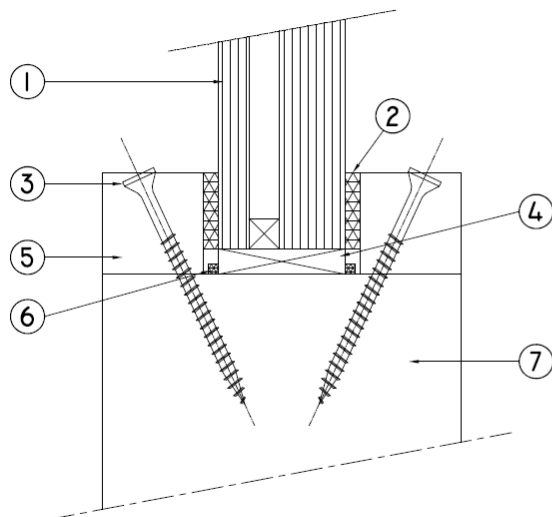
Table 10 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
1375 (at 2477 high)	3096 (at 1100 wide)	3.40

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CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 30 Climaplus Glass in timber doors for periods of 30 minutes integrity and 15 minutes insulation

The IGU shall be glazed within a previously fire tested or CERTIFIRE approved timber based doorset (which is covered appropriately by test or assessment evidence). The IGU shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



- ① CONTRAFLAM LITE 30 CLIMAPLUS (edge-cover 15 mm)
- ② Mann McGowan Pyrotape CF 15 x 3 mm & Neutral Silicone or Mann McGowan Pyroglaze 30 Tape 10 x 3 mm
- ③ 4.5 x 50 mm long steel screws at 150 mm centres (20° - 30° to glass)
- ④ Non-combustible / hardwood setting blocks glass thickness x 5 x 80 mm (w x h x d) (2 pieces per glass, on the bottom only)
- ⑤ 20.5 x 20 mm (h x w) hardwood glazing beads, minimum density 730 kg/m³
- ⑥ Glazing pocket liner, Mann McGowan Pyrostrip 300 SA, Section 15 x 2 mm
- ⑦ Nominally 44 mm thick FD30 door leaf

The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of IGU's comprising at least one pane of Contraflam Lite 30 glass shown in the table below, when used in conjunction with the above system:

Table 11 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
1108 (at 1443 high)	1775 (at 901 wide)	1.59

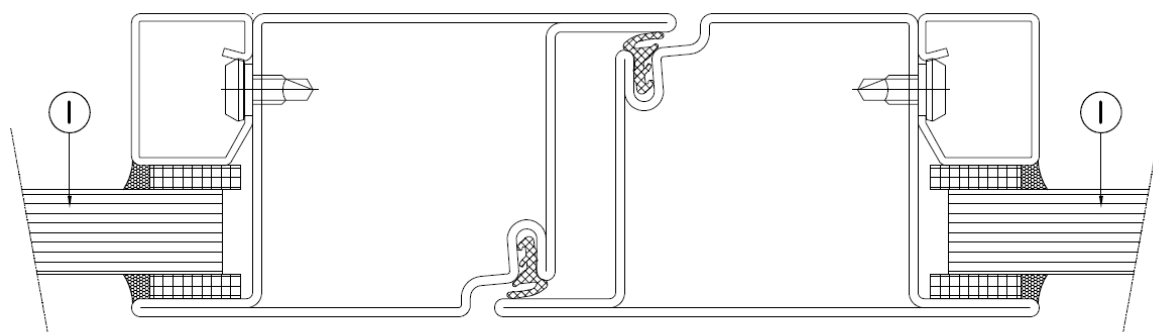
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CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 60 Glass in steel doors for periods of 60 minutes integrity

The glass shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.

① CONTRAFLAM LITE 60 (14 mm thick minimum)
(edge-cover 15 mm minimum)



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam Lite 60 glass shown in the table below, when used in conjunction with the above system:

Table 12 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
1387 (at 2400 high)	3000 (at 1110 wide)	3.33
1562 (at 2338 high)	2922 (at 1250 wide)	3.65
1280 (at 2448 high)	3060 (at 1024 wide)	3.13

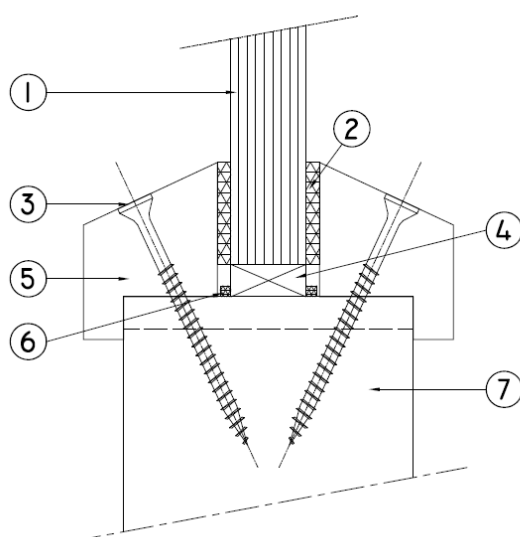
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CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 60 Glass in timber doors for periods of 60 minutes integrity

The glass shall be glazed within a previously fire tested or CERTIFIRE approved timber based doorset (which is covered appropriately by test or assessment evidence). The glass shall be set on non-combustible setting blocks to determine the correct edge cover.



- ① CONTRAFLAM LITE 60 (14 mm thick minimum) (edge-cover 19 mm)
- ② Mann McGowan Pyrotape CF 15 x 3 mm & Neutral Silicone
- ③ 50 mm long steel screws at 150 mm centres
- ④ Non-combustible / hardwood setting blocks glass thickness x 6 x 80 mm (w x h x d) (2 pieces per glass, on the bottom only)
- ⑤ 33 x 25 mm (h x w) hardwood glazing beads minimum density 650 kg/m³ (including 8 x 8 mm (h x w) bolection with approximately 25° chamfer)
- ⑥ Glazing pocket liner, Mann McGowan Pyrostrip 300 SA, Section 15 x 2 mm & 6 mm minimum hardwood liner (for non-solid wood cores only e.g. chipboard)
- ⑦ Nominally 54 mm thick FD60 door leaf

The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam Lite 60 glass shown in the table below, when used in conjunction with the above system:

Table 13 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
529 (at 1586 high)	1776 (at 472 wide)	0.83

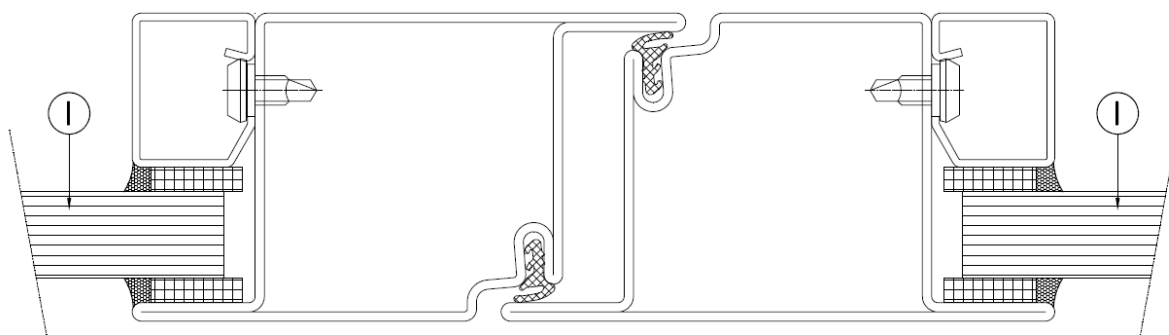
CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 90 Glass in steel doors for periods of 90 minutes integrity

The glass shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.

① CONTRAFLAM LITE 90 (14 mm thick minimum)
(edge-cover 15 mm minimum)



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam Lite 90 glass shown in the table below, when used in conjunction with the above system:

Table 14 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
1387 (at 2400 high)	3000 (at 1110 wide)	3.33
1562 (at 2338 high)	2922 (at 1250 wide)	3.65
1280 (at 2448 high)	3060 (at 1024 wide)	3.13

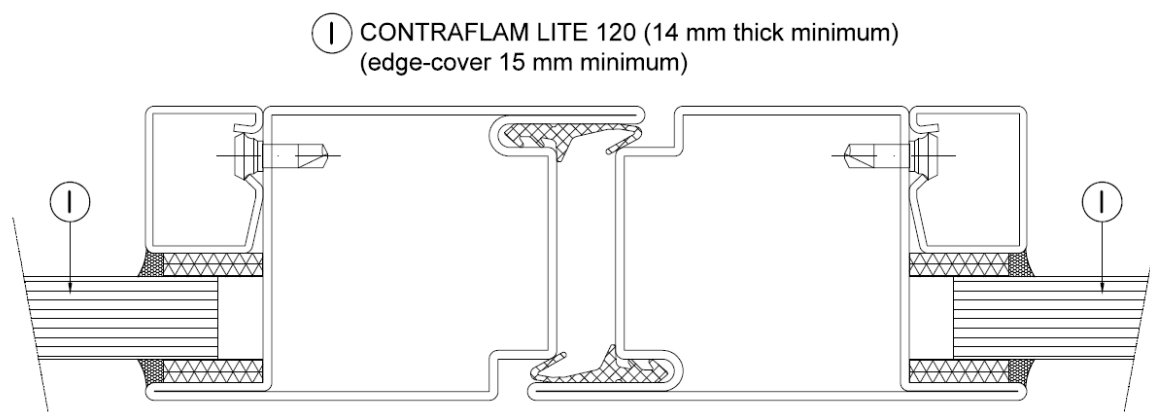
Note: If applicable, a STADIP laminated glass used in the composition of the Contraflam unit is allowable, but on the fire side only.

CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 120 Glass in steel doors for periods of 120 minutes integrity

The glass shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam Lite 120 glass shown in the table below, when used in conjunction with the above system:

Table 15 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
1275 (at 2338 high)	2384 (at 1250 wide)	2.98
1126 (at 2448 high)	2693 (at 1024 wide)	2.75

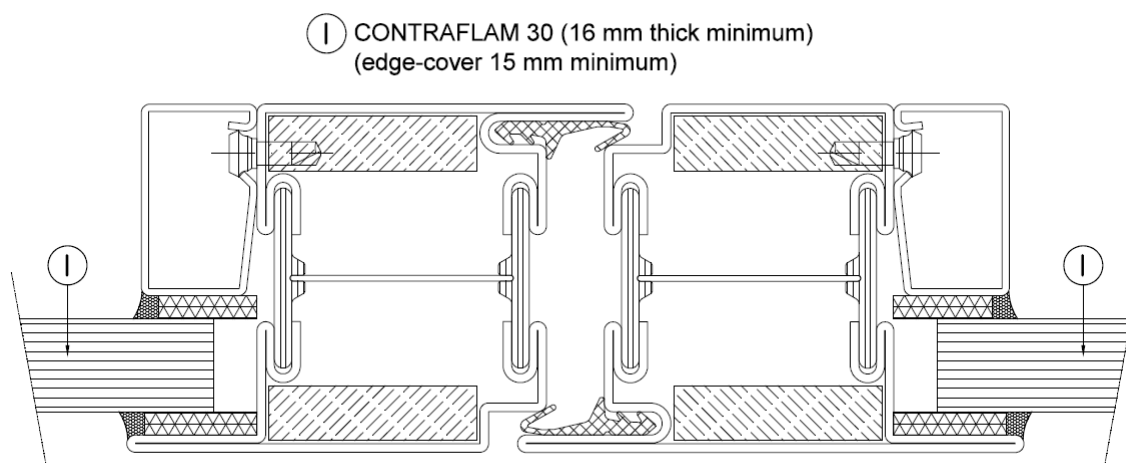
Note: If applicable, a STADIP laminated glass used in the composition of the Contraflam unit is allowable, but on the fire side only.

CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Glass in steel doors for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 30 glass shown in the table below, when used in conjunction with the above system:

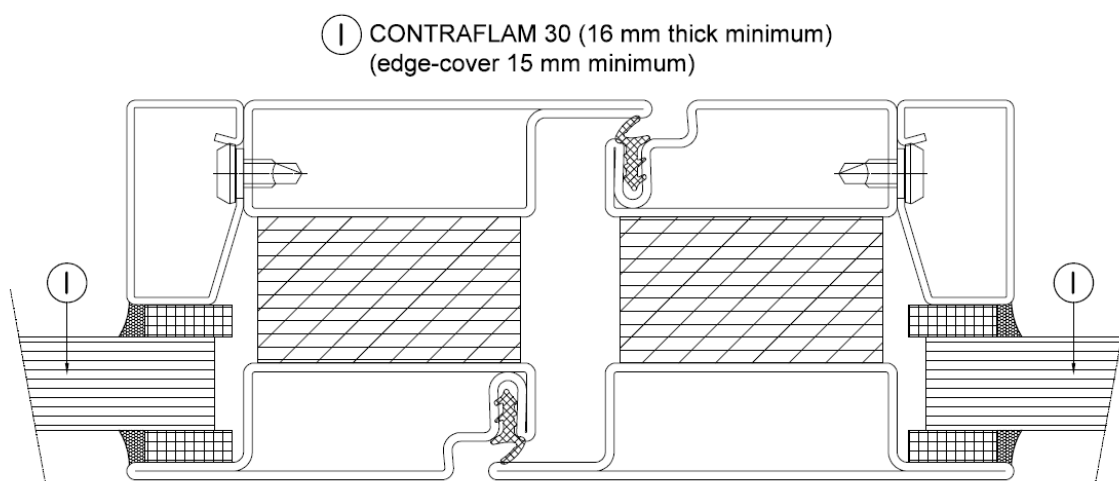
Table 16 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1620 (at 2573 high)	3216 (at 1296 wide)	4.16
1432 (at 2733 high)	3416 (at 1146 wide)	3.91

CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Glass in steel doors for periods of 60 minutes integrity and 30 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 30 glass shown in the table below, when used in conjunction with the above system:

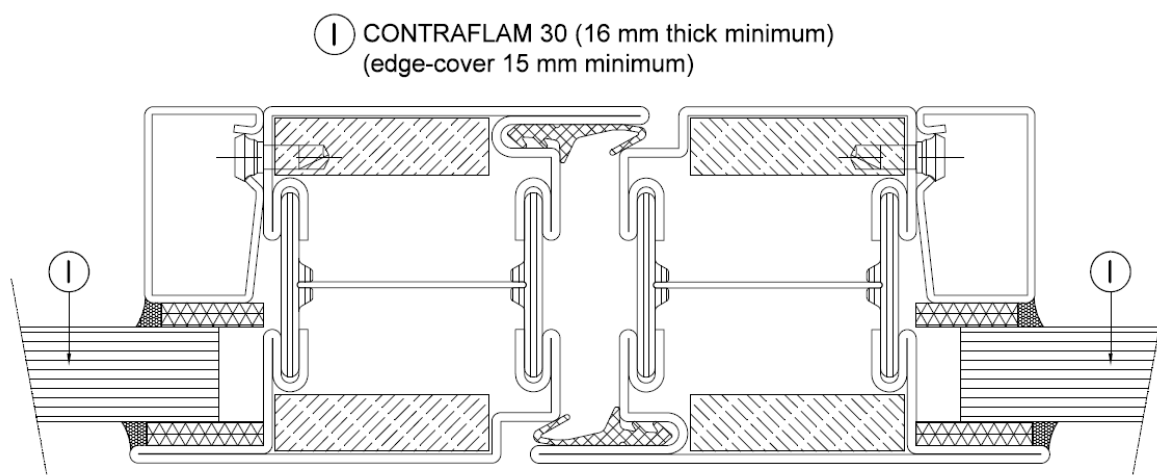
Table 17 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1471 (at 2387 high)	2697 (at 1302 wide)	3.51

CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Glass in steel doors for periods of 90 minutes integrity and 30 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 30 glass shown in the table below, when used in conjunction with the above system:

Table 18 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1137 (at 2135 high)	2626 (at 925 wide)	2.42

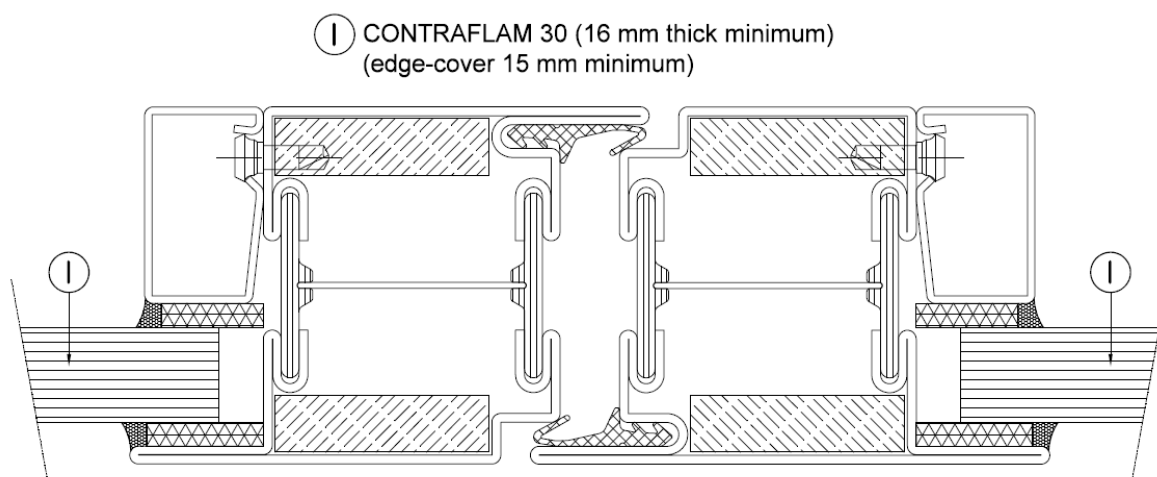
Note: If applicable, a STADIP laminated glass used in the composition of the Contraflam unit is allowable, but on the fire side only.

CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Glass in steel doors for periods of 120 minutes integrity and 30 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 30 glass shown in the table below, when used in conjunction with the above system:

Table 19 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
971 (at 2135 high)	2241 (at 925 wide)	2.07

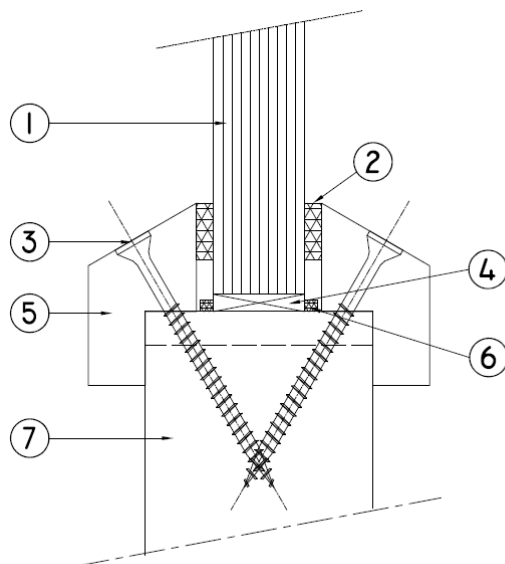
Note: If applicable, a STADIP laminated glass used in the composition of the Contraflam unit is allowable, but on the fire side only.

CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Glass in timber doors for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved timber based doorset (which is covered appropriately by test or assessment evidence). The glass shall be set on non-combustible setting blocks to determine the correct edge cover.



- ① CONTRAFLAM 30 (16 mm thick minimum)
(edge-cover 16 mm)
- ② Mann McGowan Pyroglaze 30 Tape 10 x 3 mm
- ③ 50 mm long steel screws at 200 mm centres
- ④ Non-combustible / hardwood setting blocks
glass thickness x 3 x 80 mm (w x h x d)
(2 pieces per glass, on the bottom only)
- ⑤ 32 x 18.5 mm (h x w) hardwood glazing beads
minimum density 650 kg/m³ (including 13 x 10 mm
(h x w) bolection with approximately 30° chamfer)
- ⑥ Glazing pocket liner, Mann McGowan Pyrostrip 300
SA, Section 15 x 2 mm & 6 mm minimum hardwood
liner (for non-solid wood cores only e.g. chipboard)
- ⑦ Nominally 40 mm thick FD30 door leaf

The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 30 glass shown in the table below, when used in conjunction with the above system:

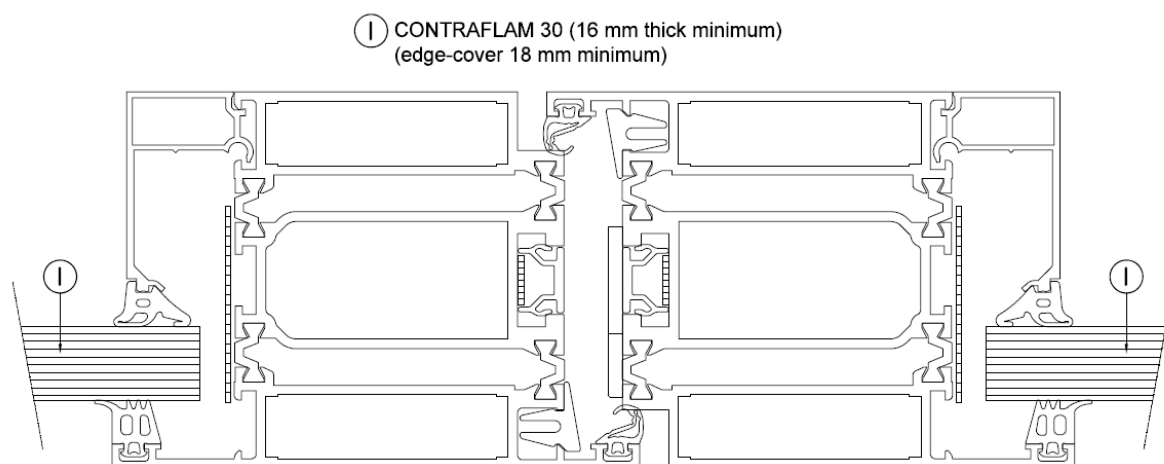
Table 20 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
1474 (at 2824 high)	3106 (at 1340 wide)	4.16

CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Glass in Wicona Wicstyle 77FP aluminium doors for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved aluminium based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 30 glass shown in the table below, when used in conjunction with the above system:

Table 21 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1474 (at 2824 high)	3106 (at 1340 wide)	4.16

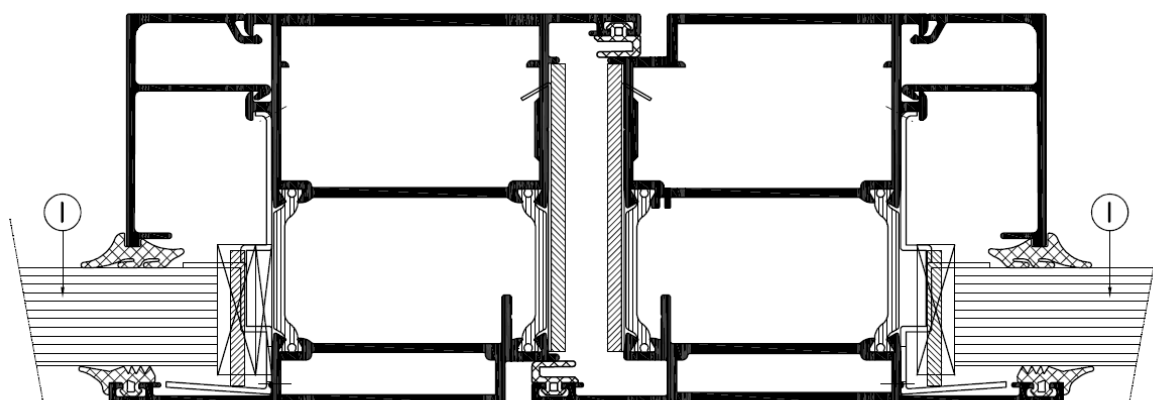
CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Glass in Alcoa Kawneer AA720 FR aluminium doors for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved aluminium based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.

① CONTRAFLAM 30 (16 mm thick minimum)
(bead side edge-cover 17 mm minimum)



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 30 glass shown in the table below, when used in conjunction with the above system:

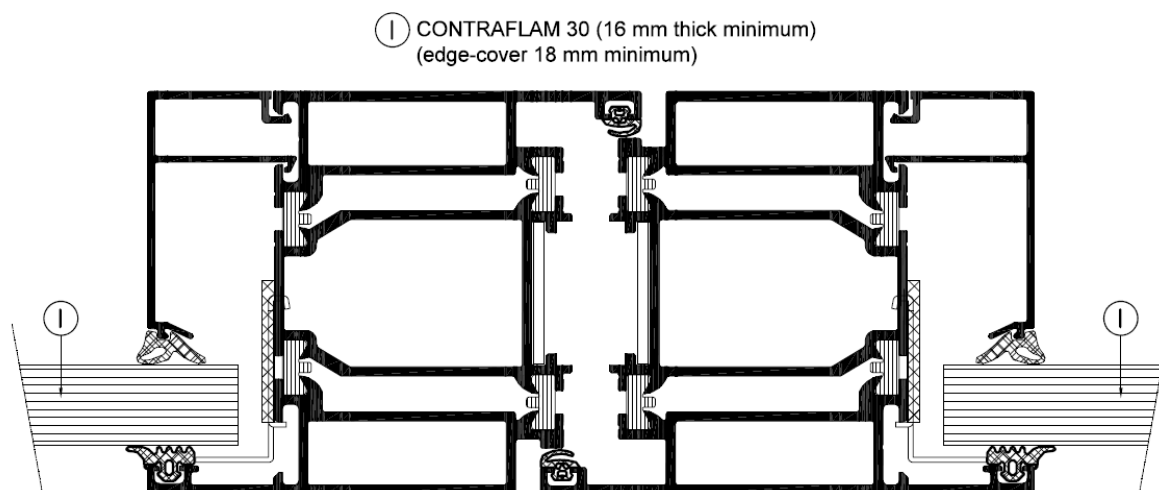
Table 22 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1492 (at 2444 high)	2932 (at 1244 wide)	3.64

CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Glass in Schüco ADS 80 FR 30 aluminium doors for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved aluminium based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 30 glass shown in the table below, when used in conjunction with the above system:

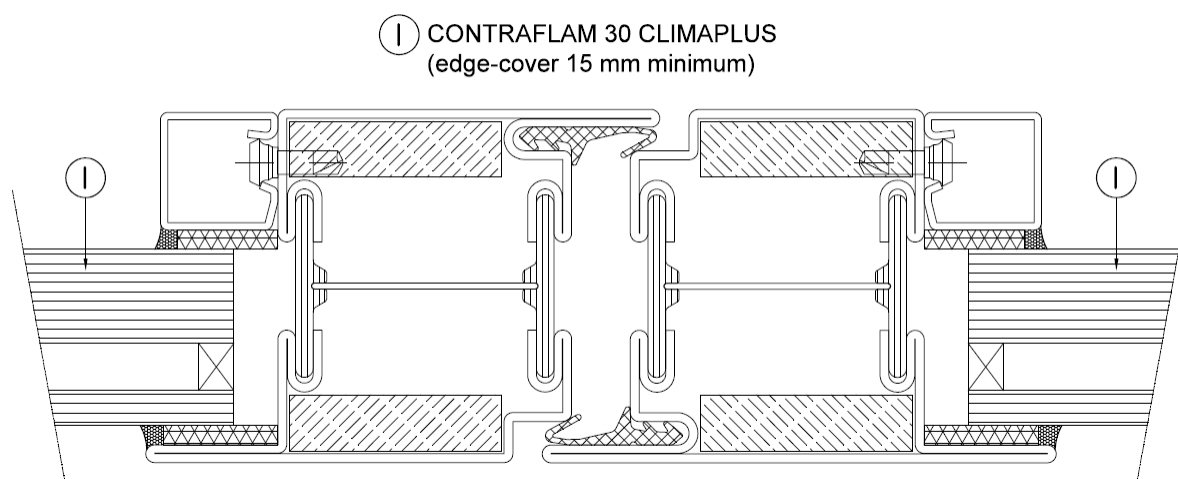
Table 23 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1446 (at 2875 high)	3248 (at 1280 wide)	4.15

CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Climaplus Glass in steel doors for periods of 30 minutes integrity and 30 minutes insulation

The IGU shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The IGU shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of IGU's comprising at least one pane of Contraflam 30 glass shown in the table below, when used in conjunction with the above system:

Table 24 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1156 (at 2135 high)	2668 (at 925 wide)	2.46

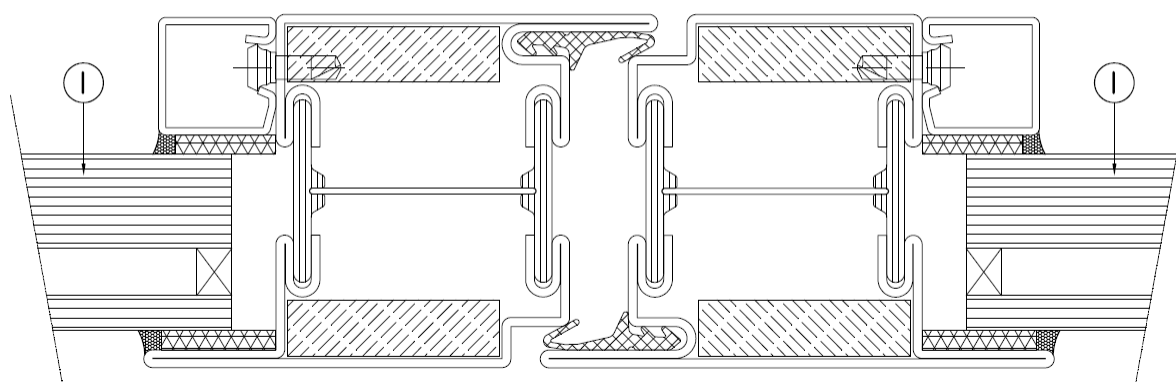
CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Climaplus Glass in steel doors for periods of 90 minutes integrity and 30 minutes insulation

The IGU shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The IGU shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.

① CONTRAFLAM 30 CLIMAPLUS
(edge-cover 15 mm minimum)



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of IGU's comprising at least one pane of Contraflam 30 glass shown in the table below, when used in conjunction with the above system:

Table 25 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1137 (at 2135 high)	2626 (at 925 wide)	2.42

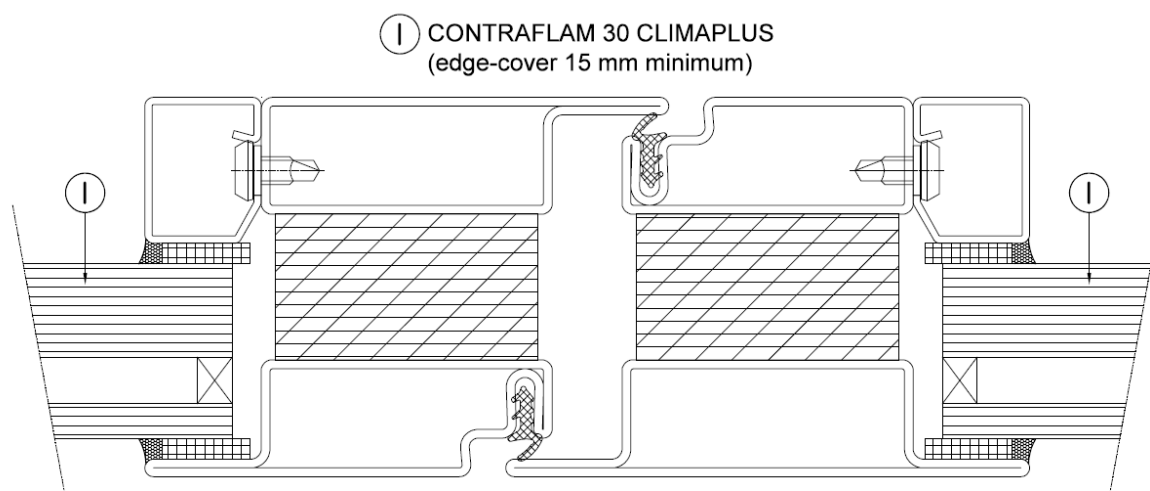
Note: If applicable, a STADIP laminated counterpane or STADIP laminated glass used in the composition of the Contraflam unit is allowable, but on the fire side only.

CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Climaplus Glass in steel doors for periods of 120 minutes integrity and 30 minutes insulation

The IGU shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The IGU shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of IGU's comprising at least one pane of Contraflam 30 glass shown in the table below, when used in conjunction with the above system:

Table 26 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
971 (at 2135 high)	2241 (at 925 wide)	2.07

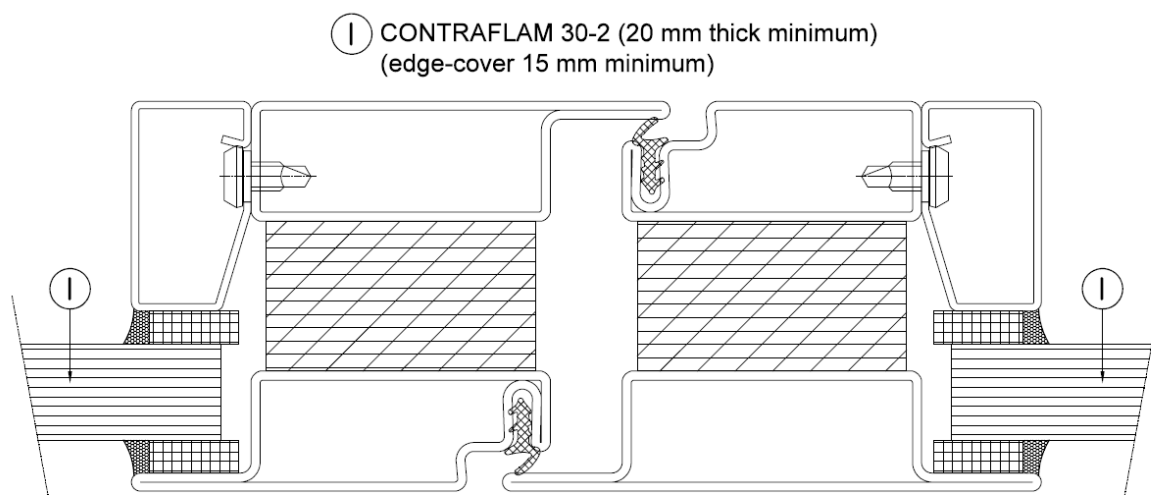
Note: If applicable, a STADIP laminated counterpane or STADIP laminated glass used in the composition of the Contraflam unit is allowable, but on the fire side only.

CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30-2 Glass in steel doors for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 30-2 glass shown in the table below, when used in conjunction with the above system:

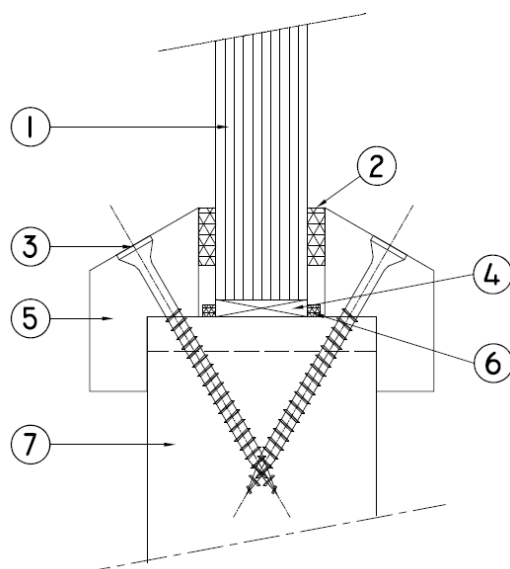
Table 27 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1600 (at 2840 high)	3550 (at 1280 wide)	4.54

CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30-2 Glass in timber doors for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved timber based doorset (which is covered appropriately by test or assessment evidence). The glass shall be set on non-combustible setting blocks to determine the correct edge cover.



- ① CONTRAFLAM 30-2 (20 mm thick minimum)
(edge-cover 16 mm)
- ② Mann McGowan Pyroglaze 30 Tape 10 x 3 mm
- ③ 50 mm long steel screws at 200 mm centres
- ④ Non-combustible / hardwood setting blocks
glass thickness x 3 x 80 mm (w x h x d)
(2 pieces per glass, on the bottom only)
- ⑤ 32 x 18.5 mm (h x w) hardwood glazing beads
minimum density 650 kg/m³ (including 13 x 10 mm
(h x w) bolection with approximately 30° chamfer)
- ⑥ Glazing pocket liner, Mann McGowan Pyrostrip 300
SA, Section 15 x 2 mm & 6 mm minimum hardwood
liner (for non-solid wood cores only e.g. chipboard)
- ⑦ Nominally 40 mm thick FD30 door leaf

The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 30-2 glass shown in the table below, when used in conjunction with the above system:

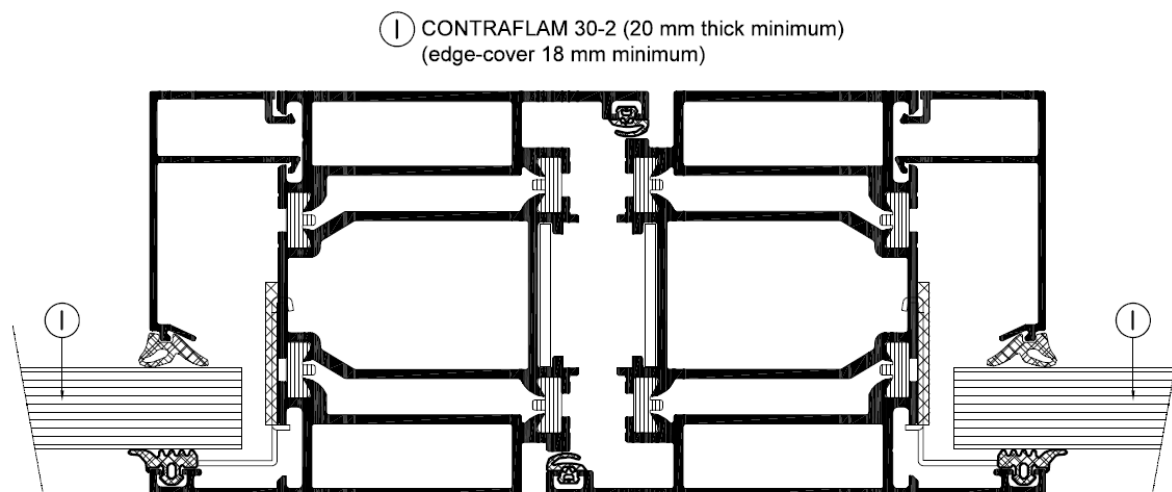
Table 28 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
1600 (at 2840 high)	3550 (at 1280 wide)	4.54

CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30-2 Glass in Schüco ADS 80 FR 30 aluminium doors for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved aluminium based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 30-2 glass shown in the table below, when used in conjunction with the above system:

Table 29 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1600 (at 2840 high)	3550 (at 1280 wide)	4.54

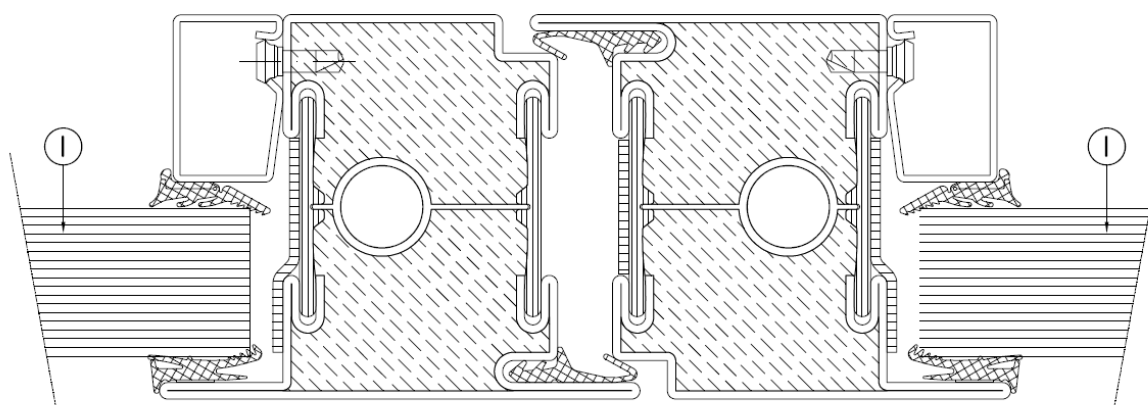
CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 60-3 Glass in steel doors for periods of 60 minutes integrity and 60 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.

① CONTRAFLAM 60-3 (27 mm thick minimum)
(edge-cover 15 mm minimum)



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 60-3 glass shown in the table below, when used in conjunction with the above system:

Table 30 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1382 (at 2875 high)	3105 (at 1280 wide)	3.97
1611 (at 2390 high)	2939 (at 1310 wide)	3.85

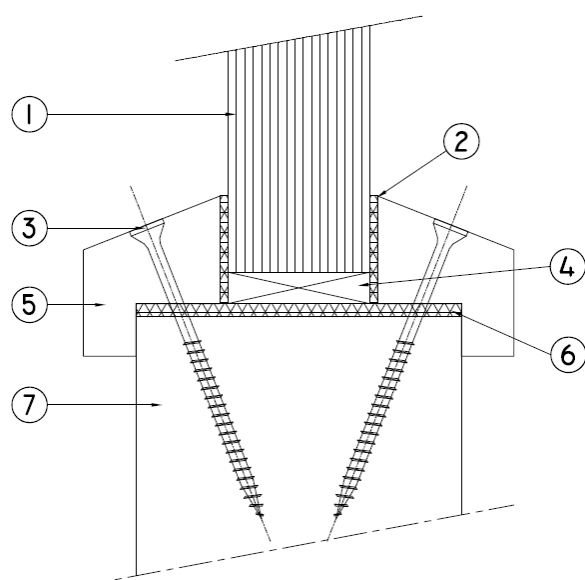
CERTIFICATE No CF811C

VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 60-3 Glass in timber doors for periods of 60 minutes integrity and 60 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved timber based doorset (which is covered appropriately by test or assessment evidence). The glass shall be set on non-combustible setting blocks to determine the correct edge cover.



- ① CONTRAFLAM 60-3 (27 mm thick minimum) (edge-cover 15 mm)
- ② Sealmaster Fireglaze tape 20 x 2.5 mm
- ③ No.8 x 3" long steel screws at 150 mm centres (22° to glass)
- ④ Non-combustible / hardwood setting blocks glass thickness x 6 x 80 mm (w x h x d) (2 pieces per glass, on the bottom only)
- ⑤ 30.5 x 26.3 mm (h x w) hardwood glazing beads minimum density 665 kg/m³ (including 10 x 10 mm (h x w) bolection with 20° chamfer)
- ⑥ Door liner, Sealmaster Fireglaze tape 62 x 2.5 mm
- ⑦ Nominally 62 mm thick FD60 door leaf

The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 60-3 glass shown in the table below, when used in conjunction with the above system:

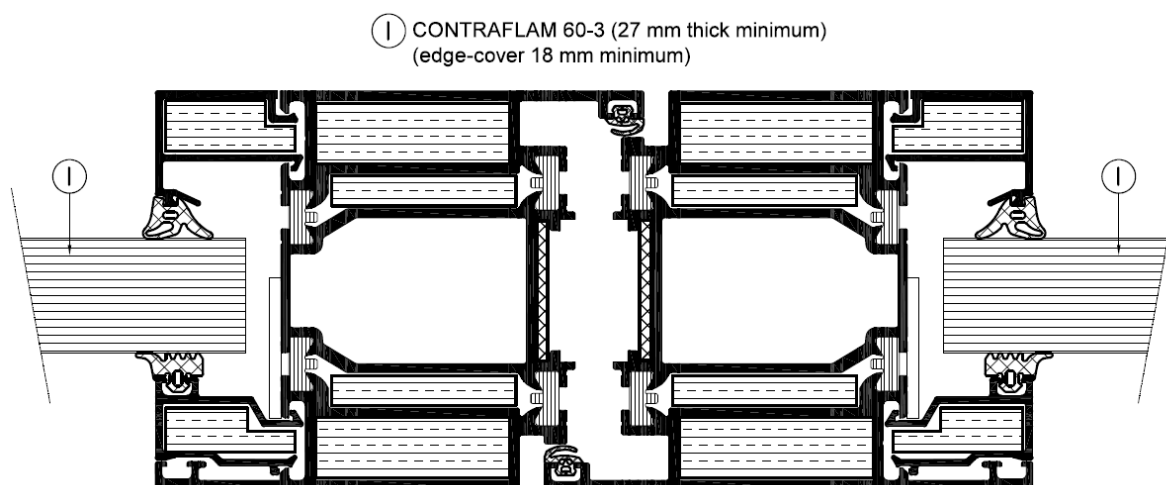
Table 31 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m ²)
1382 (at 2875 high)	3105 (at 1280 wide)	3.97

CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 60-3 Glass in Schüco ADS 80 FR 60 aluminium doors for periods of 60 minutes integrity and 60 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved aluminium based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 60-3 glass shown in the table below, when used in conjunction with the above system:

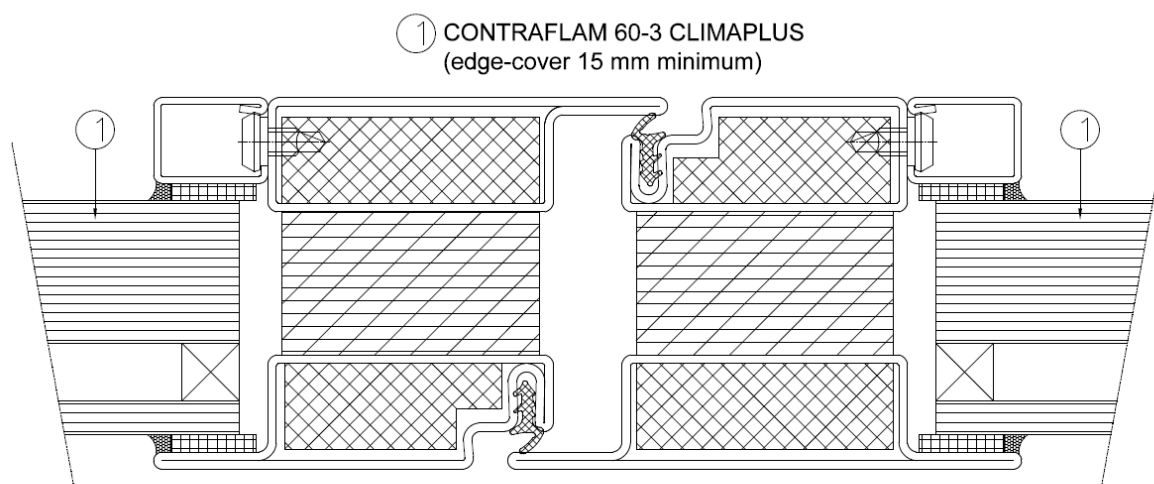
Table 32 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1382 (at 2875 high)	3105 (at 1280 wide)	3.97

CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 60-3 Climaplus Glass in steel doors for periods of 60 minutes integrity and 60 minutes insulation

The IGU shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The IGU shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of IGU's comprising at least one pane of Contraflam 60-3 glass shown in the table below, when used in conjunction with the above system:

Table 33 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1519 (at 2390 high)	2772 (at 1310 wide)	3.63

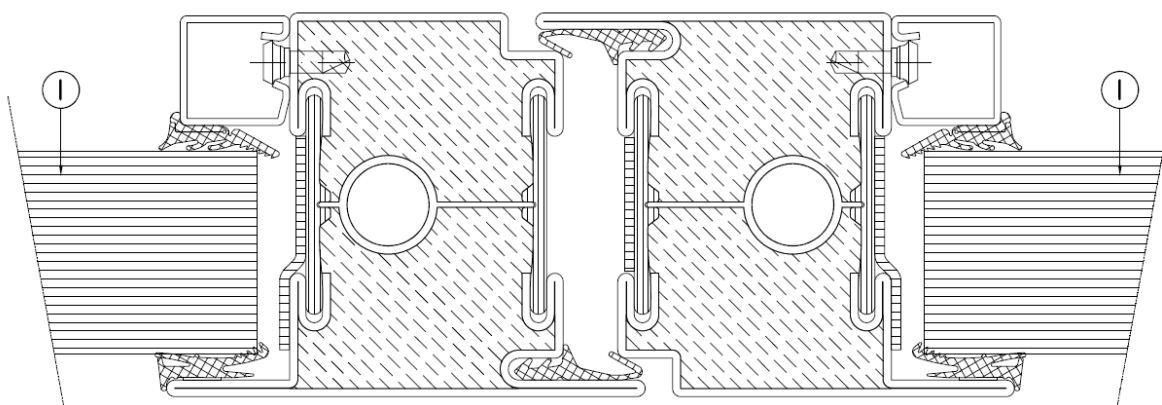
CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 90-4 Glass in steel doors for periods of 90 minutes integrity and 90 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.

① CONTRAFLAM 90-4 (40 mm thick minimum)
(edge-cover 15 mm minimum)



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 90-4 glass shown in the table below, when used in conjunction with the above system:

Table 34 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1364 (at 2500 high)	3100 (at 1100 wide)	3.41
1428 (at 2760 high)	2898 (at 1360 wide)	3.94
1536 (at 2360 high)	2666 (at 1360 wide)	3.62

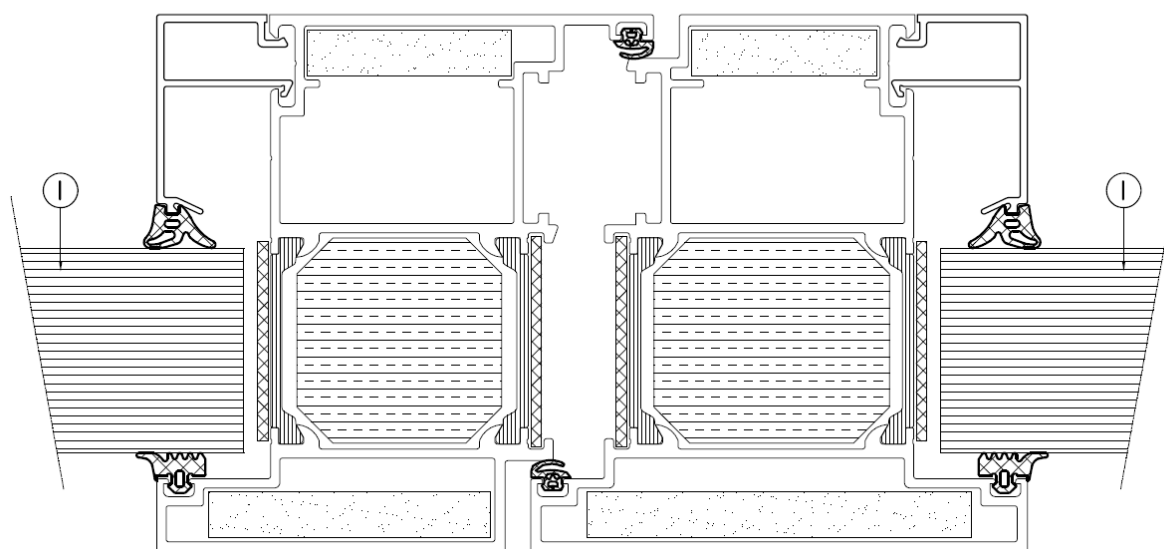
CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 90-4 Glass in Schüco Firestop T90/F90 aluminium doors for periods of 90 minutes integrity and 90 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved aluminium based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.

① CONTRAFLAM 90-4 (40 mm thick minimum)
(edge-cover 17 mm minimum)



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 90-4 glass shown in the table below, when used in conjunction with the above system:

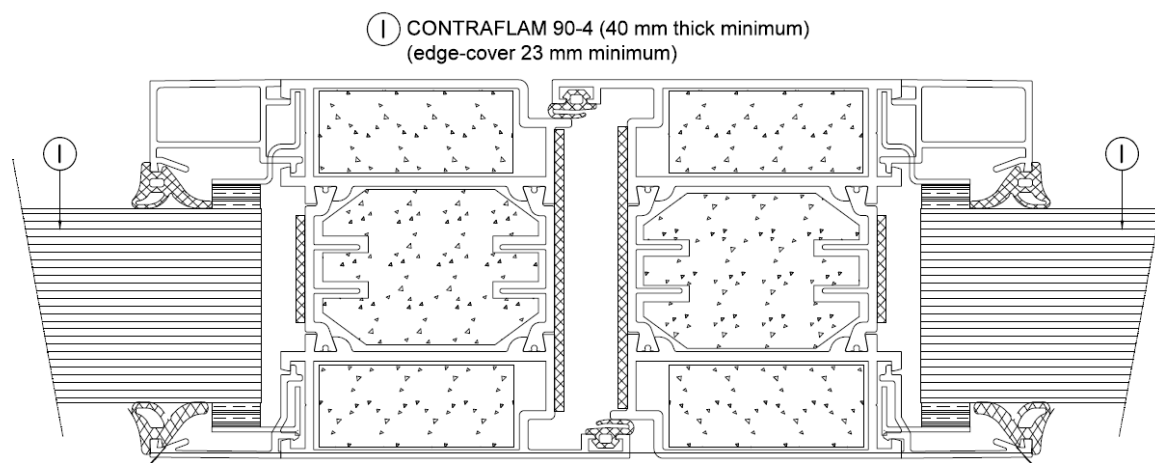
Table 35 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1224 (at 2304 high)	2350 (at 1200 wide)	2.82

CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 90-4 Glass in Aluprof MB-78EI aluminium doors for periods of 90 minutes integrity and 90 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved aluminium based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 90-4 glass shown in the table below, when used in conjunction with the above system:

Table 36 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1348 (at 2360 high)	2525 (at 1260 wide)	3.18

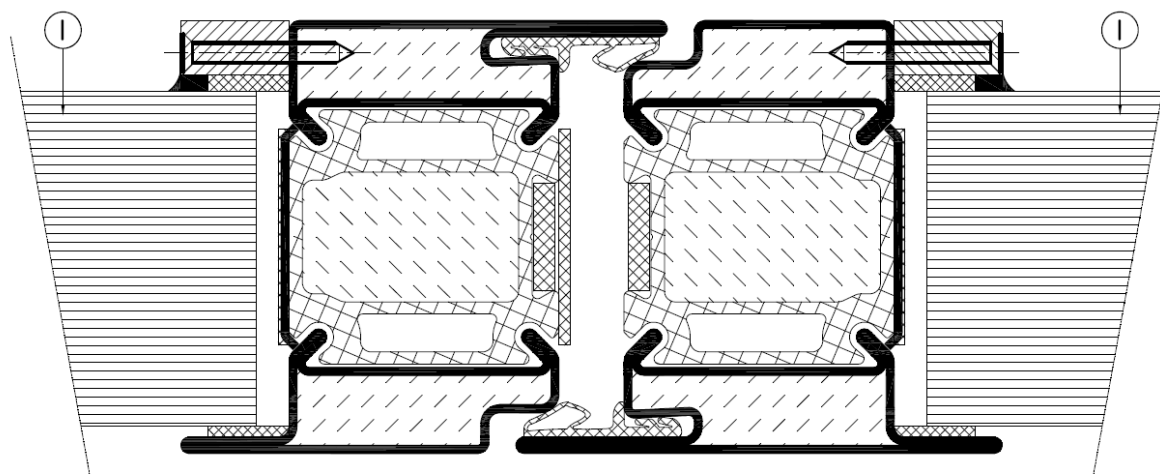
CERTIFICATE No CF811C VETROTECH SAINT-GOBAIN INTERNATIONAL AG

CONTRAFLAM FIRE RESISTING GLASS

Contraflam 120-6 Glass in Renown Engineering steel doors for periods of 120 minutes integrity and 120 minutes insulation

The glass shall be glazed within a previously fire tested or CERTIFIRE approved steel based doorset (which is covered appropriately by test or assessment evidence) using screw-fixed or clip-on retaining beads. The glass shall be glazed into the doorset as described below and set on non-combustible setting blocks to determine the correct edge cover.

① CONTRAFLAM 120-6 (60 mm thick minimum)
(edge-cover 14 mm minimum)



The doorset shall have test evidence or be CERTIFIRE approved for the inclusion of apertures of the proposed dimensions. This Certificate of Approval relates to the sizes of Contraflam 120-6 glass shown in the table below, when used in conjunction with the above system:

Table 37 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
922	2307	2.12