

CERTIFICATE OF APPROVAL No CF 811A

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: Revised: 22nd August 2011 23rd June 2023

Valid to:

23 June 2023 24th January 2027







CONTRAFLAM FIRE RESISTING GLASS

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	Steel Screens	120	15	8
	Timber Screens	30	0	9
Contraflam Door Lite Climaplus	Steel Screens	30	0	10
	Steel Screens	60	15	11
	Steel Screens	90	15	12
	Steel Screens	120	15	13
	Steel Screens (Climalit)	120	15	14
	Timber Screens	30	0	15
Contraflam Lite 30	Steel Screens	30	0	16
	Timber Screens	30	0	17
	Aluminium Screens	30	0	18
	Aluminium Screens	30	0	19
	Aluminium Screens	30	0	20
Contraflam Lite 30 Climaplus	Steel Screens	30	0	21
	Timber Screens	30	0	22
	Timber Screens	30	15	23
	Aluminium Screens	30	0	24
	Aluminium Screens	30	15	25
Contraflam Lite 60	Steel Screens	60	0	26
	Steel Screens	60	15	27
	Timber Screens	60	15	28
Contraflam Lite 60 Climaplus	Steel Screens	60	0	29
	Steel Screens	60	15	30
	Timber Screens	60	0	31
	Timber Screens	60	15	32
	Aluminium Screens	60	15	33
Contraflam Lite 90	Steel Screens	90	0	34
	Timber Screens	90	0	35
Contraflam Lite 90 Climaplus	Steel Screens	90	0	36
	Steel Screens	90	15	37
	Timber Screens	90	0	38

Page 2 of 92 Signed C/045 & R/006

Pal agg-



CONTRAFLAM FIRE RESISTING GLASS

Glass	Application	Integrity - (mins)	Insulation - (mins)	Page No.
Contraflam Lite 120	Steel Screens	120	0	39
Contraflam Lite 120 Climaplus	Steel Screens	120	0	40
	Steel Screens (Climalit)	120	0	41
Contraflam 30	Steel Screens	30	30	42
	Steel Screens	60	30	43
	Steel Screens	90	30	44
	Steel Screens	120	30	45
	Timber Screens	30	30	46-47
	Timber Screens	30	30	48
	Timber Screens	60	30	49
	Timber Screens	90	30	50
	Aluminium Screens	30	30	51
	Aluminium Screens	30	30	52
	Aluminium Screens	30	30	53
	Aluminium Screens	30	30	54
	Aluminium Screens	30	30	55
	Aluminium Screens	30	30	56
Contraflam 30 Climaplus	Steel Screens	30	30	57
	Steel Screens	60	30	58
	Timber Screens	30	30	59-60
	Timber Screens	30	30	61
	Aluminium Screens	30	30	62
	Aluminium Screens	30	30	63
	Aluminium Screens	30	30	64
	Aluminium Screens	30	30	65
Contraflam 30 Climatop	Steel Screens	30	30	66
	Timber Screens	30	30	67
Contraflam 30 Contour	Steel Screens	120	30	68
	Timber Screens	30	30	69
Contraflam 30-2	Steel Screens	60	30	70

Page 3 of 92 Signed C/045 & R/006

Pol ligg-



CONTRAFLAM FIRE RESISTING GLASS

Glass	Application	Integrity - (mins)	Insulation - (mins)	Page No.
Contraflam 60-3	Steel Screens	60	60	71
	Timber Screens	60	60	72
	Aluminium Screens	60	60	73
	Aluminium Screens	60	60	74
	Aluminium Screens	60	60	75
	Aluminium Screens	60	60	76
	Aluminium Screens	60	60	77
	Aluminium Screens	60	60	78
Contraflam 60-3 Climaplus	Steel Screens	60	60	79
	Timber Screens	60	60	80
	Aluminium Screens	60	60	81
	Aluminium Screens	60	60	82
	Aluminium Screens	60	60	83
	Aluminium Screens	60	60	84
	Aluminium Screens	60	60	85
	Aluminium Screens	60	60	86
Contraflam 90-4	Steel Screens	90	90	87
Contraflam 90-4 Climaplus	Steel Screens	90	90	88
Contraflam 120-5	Steel Screens	120	120	89
Contraflam 120-5 Climaplus	Steel Screens	120	120	90
Contraflam 120-6	Steel Screens	120	120	91
Contraflam 120-6 Climaplus	Steel Screens	120	120	92

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: 2008.
- 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.

Page 4 of 92 Signed C/045 & R/006

fol agg-



CONTRAFLAM FIRE RESISTING GLASS

General Requirements

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

Where the glass is installed in a timber or steel framed screen, the orientation of the screen shall be no more than $\pm 10^{\circ}$ from the vertical.

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.

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).

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 a rebated timber profile is shown, however, this may be substituted for a beaded profile. Furthermore; where square beading is depicted a chamfered bead may be used provided the minimum dimensions are still met (including height and edge cover requirements). Where pins are depicted, screws may be used instead. The opposite is not applicable.

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 $250 \, \mu m$.

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.

Page 5 of 92 Signed C/045 & R/006

fol egg-



CONTRAFLAM FIRE RESISTING GLASS

Note

As indicated steel profiled door and screen framing 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.

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 Door Lite	Contraflam Lite 30	Contraflam Lite 60
Contraflam Lite 90	Contraflam Lite 120	Contraflam 30
Contraflam 30-2	Contraflam 60-3	Contraflam 90-4
Contraflam 120-5	Contraflam 120-6	

Where insulation performance is required for steel or aluminium framed applications, care must be taken to ensure the steel or aluminium frame 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

Glazing pocket (aperture) liner tape shall be ≥ the thickness of the glass.

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

- Kuhn Kerafix 2000
- Hodgson Sealants Firetape Ceramic
- Fiberfrax Ceramic Tape
- Ceramic fibre glazing tape may be replaced with any CERTIFIRE approved glazing gasket system.

Page 6 of 92 Signed C/045 & R/006

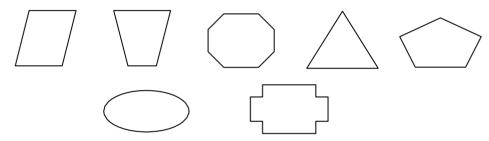
Pal ligg-



CONTRAFLAM FIRE RESISTING GLASS

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, steel and aluminium screens (subject to limitations in the framing systems). For rectilinear apertures angles between adjoining perimeter beads should not be less than 45°. Where shaped apertures are included in timber framed screens, only finger jointed glazing beads are acceptable. Maximum linear dimensions or areas as approved should not be exceeded.



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.

The screens shall be no greater than 4000 mm high unless suitable tie backs and/or fire protected structural supports are provided, unless glass height is ≥4000 mm, or unless there is suitable test evidence proving otherwise.

Page 7 of 92 Signed C/045 & R/006

fol ligg-

certifire

CERTIFICATE No CF 811A VETROTECH SAINT-GOBAIN INTERNATIONAL

CONTRAFLAM FIRE RESISTING GLASS

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

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

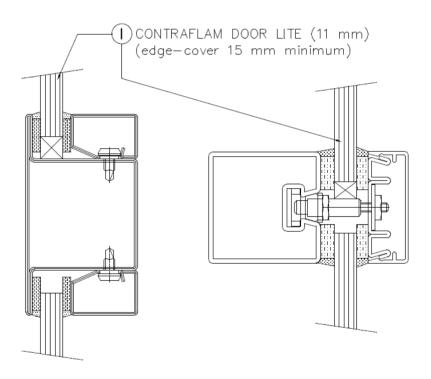


Table 1 - Maximum Permitted Glass Dimensions		
Max. Width (mm) Max. Area (m²)		
1100 (at 2200 high)	1100 (at 2200 high)	2.42

Page 8 of 92 Signed C/045 & R/006

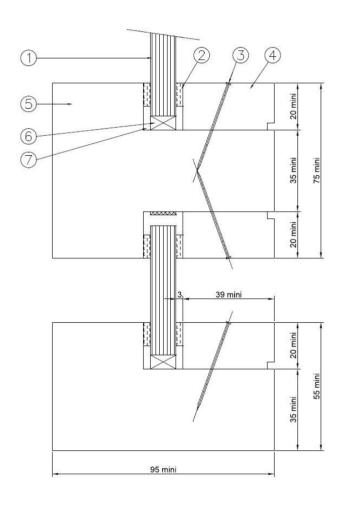
Pal legg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Door Lite Glass in timber framed screens for periods of 30 minutes integrity

The glass shall be glazed utilising the following basic specification:



- (edge-cover 15 mm)
- 2 Mann McGowan Pyroglaze 30 glazing seal 3 x 10 mm
- ③Ø 1.8 x 40 mm long steel pins at 150 mm centres
- (4) Minimum 20 x 39 mm (h x w) timber glazing beads minimum density 510 kg/m3
- (5) Minimum 95 x 55 mm outer timber framing section & 95 x 75 mm intermediate timber framing section. Minimum density 510 kg/m3
- 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)
- (7) Glazing pocket liner, Mann McGowan Pyroglaze 300 SA, section 2 mm x glass thickness (mm)

Table 2 – Maximum Permitted Glass Dimensions			
Max. Width (mm)	Max. Height (mm)	Max. Area (m²)	
1100 (at 2200 high)	2200 (at 1100 wide)	2.42	

Page 9 of 92 Signed C/045 & R/006

Pal agg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Door Lite Climaplus Glass in steel screens for periods of 30 minutes integrity

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

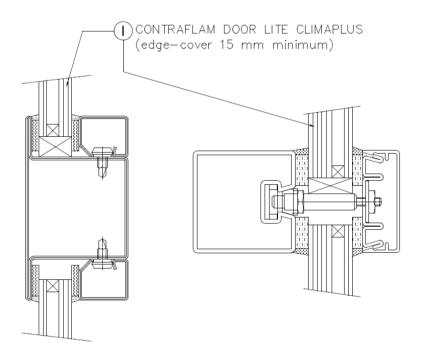


Table 3 –	Table 3 – Maximum Permitted Glass Dimensions		
Max. Width (mm) Max. Height (mm) Max. Area (m²)			
1000 (at 2000 high)	2000 (at 1000 wide)	2.0	

Page 10 of 92 Signed C/045 & R/006

Pal legg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Door Lite Climaplus Glass in steel screens for periods of 60 minutes integrity and 15 minutes insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

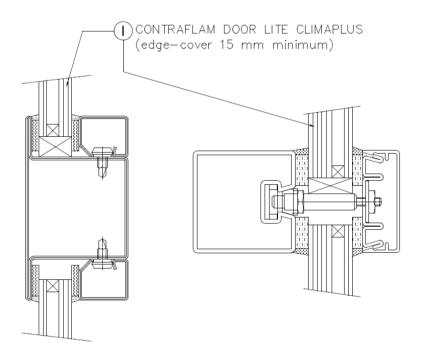


Table 4 – Maximum Permitted Glass Dimensions		
Max. Width (mm) Max. Height (mm) Max. Area (m²)		
1000 (at 2000 high)	2000 (at 1000 wide)	2.0

Page 11 of 92 Signed C/045 & R/006

Pol Agg-



CONTRAFLAM FIRE RESISTING GLASS

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

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

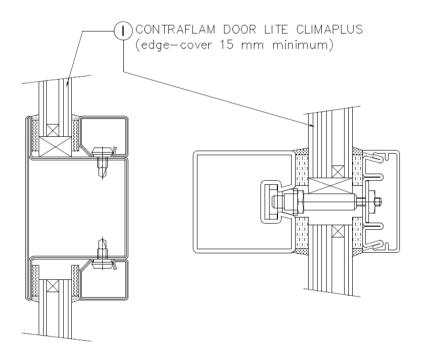


Table 5 – Maximum Permitted Glass Dimensions		
Max. Width (mm) Max. Height (mm) Max. Area (m²)		
1000 (at 2000 high)	2000 (at 1000 wide)	2.0

Page 12 of 92 Signed C/045 & R/006

Pol Agg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Door Lite Climaplus (low-e or solar controlled coating) Glass in steel screens for periods of 120 minutes integrity and 15 minutes insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

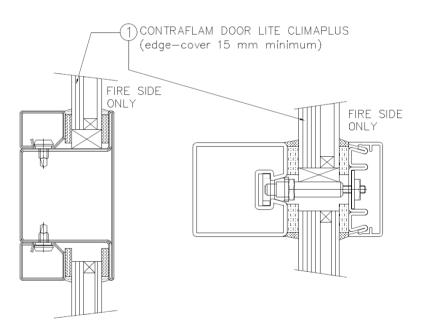


Table 6 – Maximum Permitted Glass Dimensions			
Max. Width (mm) Max. Height (mm) Max. Area (m²)			
1000 (at 2000 high)	2000 (at 1000 wide)	2.0	

Note: Where the counterpane of the IGU has a low-e or solar controlled coating, it shall be limited to use on the exposed face only. i.e. fire side to counter pane side only.

Page 13 of 92 Signed C/045 & R/006

fol egg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Door Lite Climalit (no low-e or solar controlled coating) Glass in steel screens for periods of 120 minutes integrity and 15 minutes insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

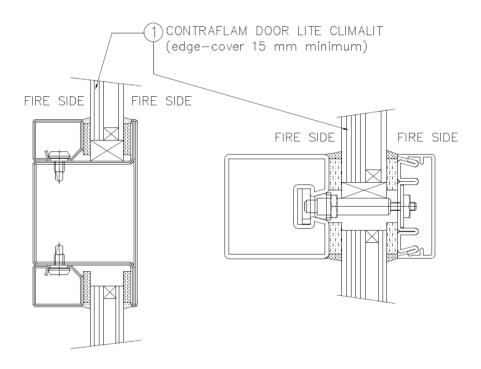


Table 7 – Maximum Permitted Glass Dimensions		
Max. Width (mm) Max. Height (mm) Max. Area (m²)		
1000 (at 2000 high)	2000 (at 1000 wide)	2.0

Note: Where the counterpane of the IGU does not incorporate a low-e or solar controlled coating, it shall be limited to internal (building) use only.

Note: This construction may be oriented in either direction. i.e. fire side to both sides.

Page 14 of 92 Signed C/045 & R/006

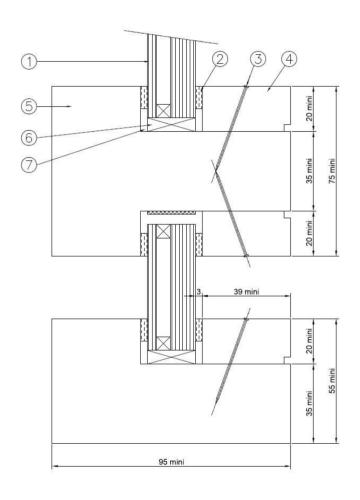
fol ligg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Door Lite Climaplus Glass in timber framed screens for periods of 30 minutes integrity

The glass shall be glazed utilising the following basic specification:



- 1 CONTRAFLAM DOOR LITE CLIMAPLUS (edge-cover 15 mm)
- Mann McGowan Pyroglaze 30 glazing seal 3 x 10 mm
- ③Ø 1.8 x 40 mm long steel pins at 150 mm centres
- (4) Minimum 20 x 39 mm (h x w) timber glazing beads minimum density 510 kg/m3
- (5) Minimum 95 x 55 mm outer timber framing section & 95 x 75 mm intermediate timber framing section. Minimum density 510 kg/m3
- 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)
- Glazing pocket liner, Mann McGowan Pyroglaze 300 SA, section 2 mm x glass thickness (mm)

Table 8 – Maximum Permitted Glass Dimensions		
Max. Width (mm) Max. Height (mm) Max. Area (m²)		
1000 (at 2000 high)	2000 (at 1000 wide)	2.0

Page 15 of 92 Signed C/045 & R/006

Pal agg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 30 Glass in steel framed screens for periods of 30 minutes integrity

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

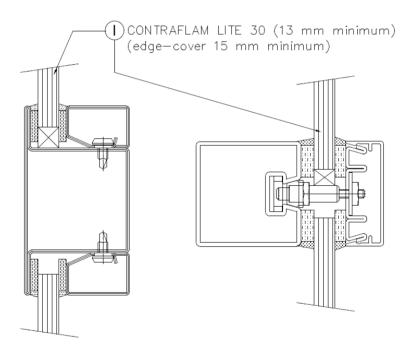


Table 9 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m²)
2300 (at 3800 high)	3800 (at 2300 wide)	8.74

Page 16 of 92 Signed C/045 & R/006

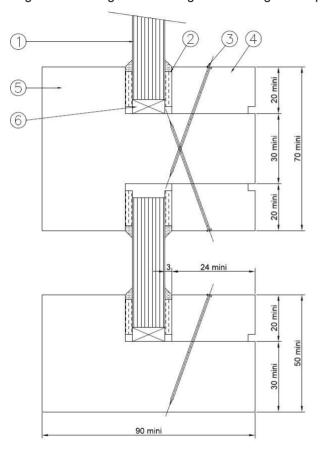
Pal ligg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 30 Glass in timber framed screens for periods of 30 minutes integrity

The glass shall be glazed utilising the following basic specification:



- (contraction) CONTRAFLAM LITE 30 (13 mm thick minimum) (edge-cover 15 mm)
- ② Kuhn Kerafix 2000 Tape 3 x 15 mm, topped with neutral curing silicone
- ③Ø 1.8 x 40 mm long steel pins at 150 mm centres
- (4) Minimum 20 x 24 mm (h x w) timber glazing beads minimum density 465 kg/m3
- (5) Minimum 90 x 50 mm outer timber framing section & 90 x 70 mm intermediate timber framing section. Minimum density 465 kg/m3
- 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)

Table 10 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m²)
2300 (at 1826 high)	3000 (at 1400 wide)	4.2
1680 (at 2500 high)	3000 (at 1400 wide)	4.23
2400 (at 1400 high)	1680 (at 2000 wide)	3.38

Page 17 of 92 Signed C/045 & R/006

Pal legg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 30 Glass in Aluprof MB-78El aluminium framed screens for periods of 30 minutes integrity.

The glass shall be installed into the Aluprof MB-78EI aluminium framing system (which is covered appropriately by test or assessment evidence).

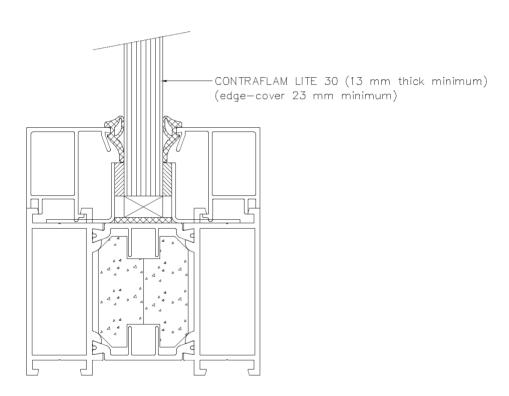


Table 11 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1749 (at 2008 high)	2329 (at 1508 wide)	3.51
1345 (at 2249 high)	2608 (at 1160 wide)	3.02

Page 18 of 92 Signed C/045 & R/006

Pal ligg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 30 Glass in Reynaers CS77-FP aluminium framed screens for periods of 30 minutes integrity

The glass shall be installed into the Reynaers CS77-FP aluminium framing system (which is covered appropriately by test or assessment evidence).

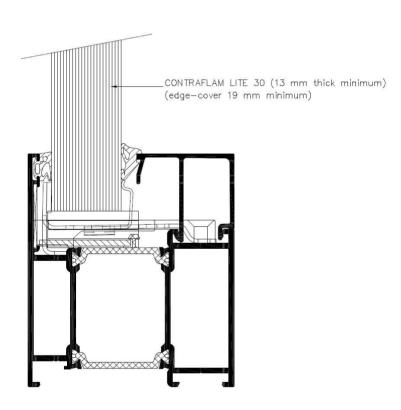


Table 12 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1740 (at 3000 high)	3480 (at 1500 wide)	5.22

Page 19 of 92 Signed C/045 & R/006

Pal agg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 30 Glass in Schuco ADS65 Ni FR 30 aluminium framed screens for periods of 30 minutes integrity.

The glass shall be installed into the Schuco ADS65 Ni FR30 aluminium framing system (which is covered appropriately by test or assessment evidence).

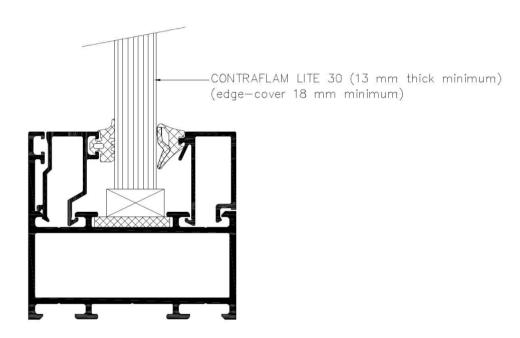


Table 13 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
2400 (at 1400 high)	1680 (at 2000 wide)	3.36
1730 (at 2898 high)	3622 (at 1384 wide)	5.01

Page 20 of 92 Signed C/045 & R/006

Pal ligg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 30 Climaplus Glass in steel framed screens for periods of 30 minutes integrity

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

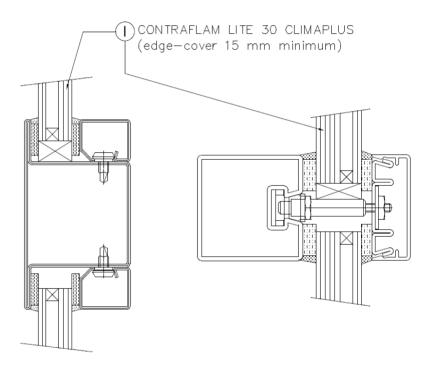


Table 14 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m²)
2300 (at 3800 high)	3800 (at 2300 wide)	8.74

Page 21 of 92 Signed C/045 & R/006

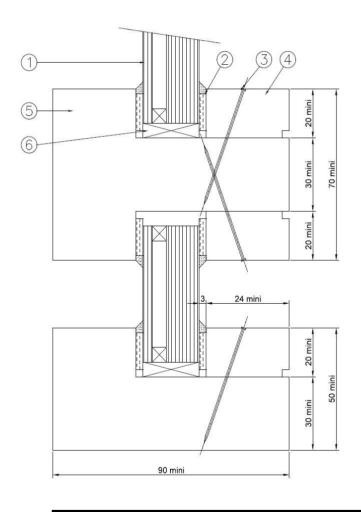
Pal legg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 30 Climaplus Glass in timber framed screens for periods of 30 minutes integrity

The glass shall be glazed utilising the following basic specification:



- 1 CONTRAFLAM LITE 30 CLIMAPLUS (edge-cover 15 mm)
- Kuhn Kerafix 2000 Tape 3 x 15 mm, topped with neutral curing silicone
- (3) Ø 1.8 x 40 mm long steel pins at 150 mm centres
- (4) Minimum 20 x 24 mm (h x w) timber glazing beads minimum density 465 kg/m3
- (5) Minimum 90 x 50 mm outer timber framing section & 90 x 70 mm intermediate timber framing section. Minimum density 465 kg/m3
- 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)

Table 15 - Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m²)
1875 (at 3000 high)	3750 (at 1500 wide)	5.62

Page 22 of 92 Signed C/045 & R/006

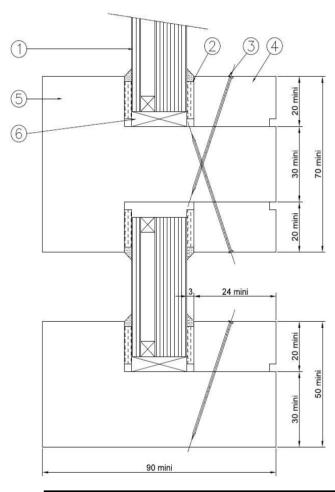
fol egg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 30 Climaplus in timber framed screens for periods of 30 minutes integrity and 15 minutes insulation

The glass shall be glazed utilising the following basic specification:



- (1) CONTRAFLAM LITE 30 CLIMAPLUS (edge-cover 15 mm)
- ② Kuhn Kerafix 2000 Tape 3 x 15 mm, topped with neutral curing silicone
- ③Ø 1.8 x 40 mm long steel pins at 150 mm centres
- (4) Minimum 20 x 24 mm (h x w) timber glazing beads minimum density 465 kg/m3
- (5) Minimum 90 x 50 mm outer timber framing section & 90 x 70 mm intermediate timber framing section. Minimum density 465 kg/m3
- 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)

Table 16 - Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m²)
3800 (at 2300 high)	2300 (at 3800 wide)	8.74

Page 23 of 92 Signed C/045 & R/006

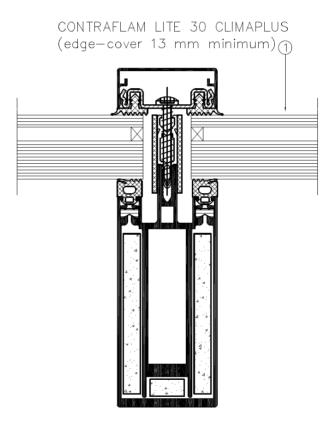
fol egg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 30 Climaplus Glass in Schuco FW 50+ BF aluminium framed screens, in a horizontal orientation, for periods of 30 minutes integrity

The glass shall be installed into the Schuco FW 50+ BF aluminium framing system (which is covered appropriately by test or assessment evidence).



The construction may be installed between 0° and 80° (from the horizontal).

Table 17 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1236 (at 2400 high)	2472 (at 1200 wide)	2.97
2266 (at 1100 high)	1133 (at 2200 wide)	2.49

Page 24 of 92 Signed C/045 & R/006

Pal agg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 30 Climaplus Glass in Schüco FW 50+ BF aluminium framed screens for periods of 30 minutes integrity and 15 minutes insulation

The glass shall be installed into the Schuco FW 50+ BF aluminium framing system (which is covered appropriately by test or assessment evidence).

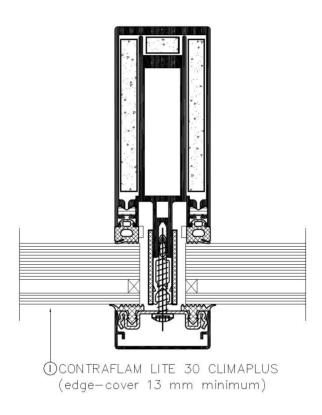


Table 18 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m²)
2300 (at 3800 high)	3800 (at 2300 wide)	8.74

Page 25 of 92 Signed C/045 & R/006

Pal legg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 60 Glass in steel framed screens for periods of 60 minutes integrity

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

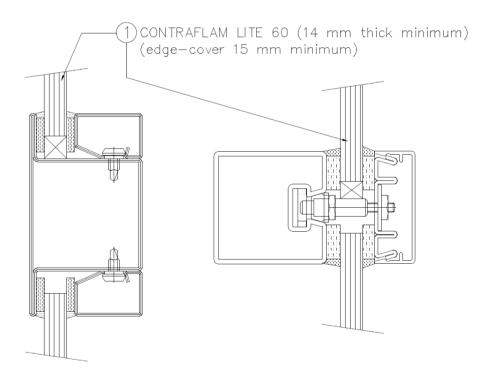


Table 19 - Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
2300 (at 3260 high)	3750 (at 2000 wide)	7.5

Page 26 of 92 Signed C/045 & R/006

Pal legg-

certifire

CERTIFICATE No CF 811A VETROTECH SAINT-GOBAIN INTERNATIONAL

CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 60 Glass in steel framed screens for periods of 60 minutes integrity and 15 minutes insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

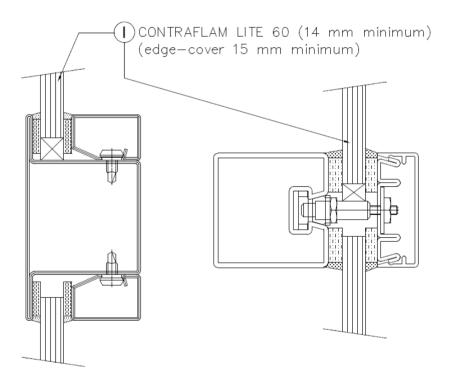


Table 20 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m²)
2037 (at 2940 high)	3675 (at 1630 wide)	5.99
2825 (at 1500 high)	1695 (at 2500 wide)	4.23

Page 27 of 92 Signed C/045 & R/006

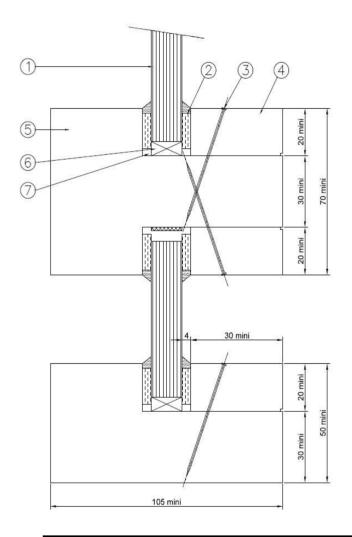
Pal legg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 60 Glass in timber framed screens for periods of 60 minutes integrity and 15 minutes insulation

The glass shall be glazed utilising the following basic specification:



- (1) CONTRAFLAM LITE 60 (14 mm thick minimum) (edge-cover 16 mm)
- Kuhn Kerafix 2000 Tape 4 x 15 mm, topped with neutral curing silicone
- 3 Ø 2 x 50 mm long steel pins at 150 mm centres
- (4) Minimum 20 x 30 mm (h x w) timber glazing beads minimum density 596 kg/m3
- (5) Minimum 105 x 50 mm outer timber framing section & 105 x 70 mm intermediate timber framing section. Minimum density 596 kg/m3
- 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)
- Glazing pocket liner, Kuhn Flexpan 200, section 1.5 mm x glass thickness (mm)

Table 21 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m²)
3800 (at 2300 high)	2300 (at 3800 wide)	8.74

Page 28 of 92 Signed C/045 & R/006

Pal legg-

certifire

CERTIFICATE No CF 811A VETROTECH SAINT-GOBAIN INTERNATIONAL

CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 60 Climaplus Glass in steel framed screens for periods of 60 minutes integrity

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

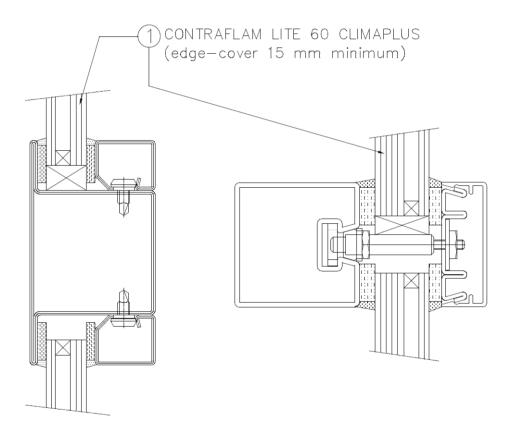


Table 22 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m²)
1875 (at 3000 high)	3750 (at 1500 wide)	5.62

Page 29 of 92 Signed C/045 & R/006

Pal legg-

certifire

CERTIFICATE No CF 811A VETROTECH SAINT-GOBAIN INTERNATIONAL

CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 60 Climaplus Glass in steel framed screens for periods of 60 minutes integrity and 15 minutes insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

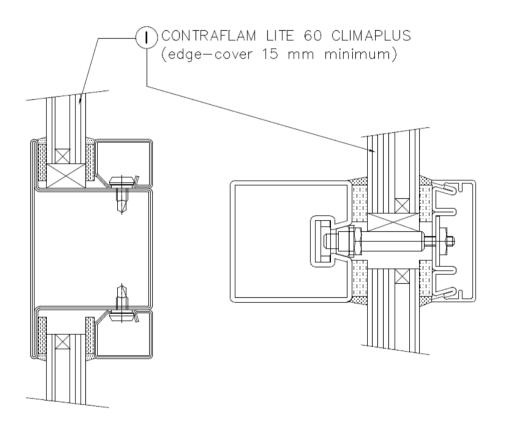


Table 23 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
2037 (at 2940 high)	3675 (at 1630 wide)	5.99

Page 30 of 92 Signed C/045 & R/006

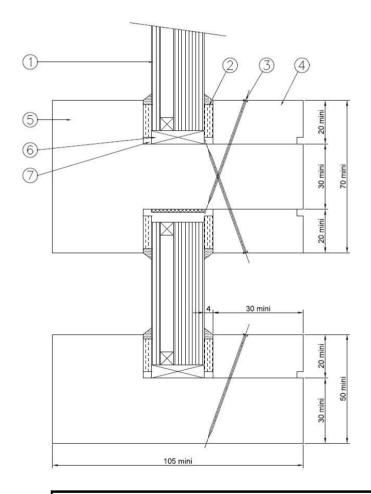
Pal agg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 60 Climaplus Glass in timber framed screens for periods of 60 minutes integrity

The glass shall be glazed utilising the following basic specification:



- 1 CONTRAFLAM LITE 60 CLIMAPLUS (edge-cover 14 mm)
- (2) Kuhn Kerafix 2000 Tape 4 x 15 mm, topped with neutral curing silicone
- 3 Ø 2 x 50 mm long steel pins at 150 mm centres
- (4) Minimum 20 x 30 mm (h x w) timber glazing beads minimum density 596 kg/m3
- (5) Minimum 105 x 50 mm outer timber framing section & 105 x 70 mm intermediate timber framing section. Minimum density 596 kg/m3
- (6) 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)
- Glazing pocket liner, Kuhn Flexpan 200, section 1.5 mm x glass thickness (mm)

Table 24 - Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m²)
1875 (at 3000 high)	3750 (at 1500 wide)	5.62
3800 (at 2300 high)	2300 (at 3800 wide)	8.74

Page 31 of 92 Signed C/045 & R/006

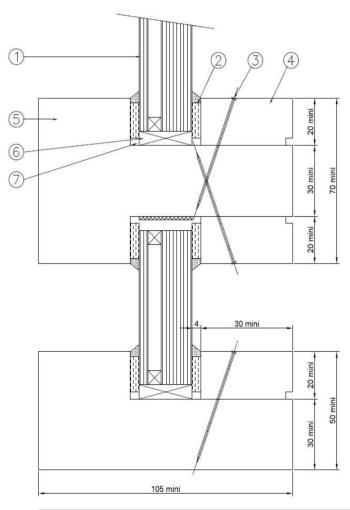
fol egg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 60 Climaplus Glass in timber framed screens for periods of 60 minutes integrity and 15 minutes insulation

The glass shall be glazed utilising the following basic specification:



- ① CONTRAFLAM LITE 60 CLIMAPLUS (edge-cover 14 mm)
- ② Kuhn Kerafix 2000 Tape 4 x 15 mm, topped with neutral curing silicone
- (3) Ø 2 x 50 mm long steel pins at 150 mm centres
- (4) Minimum 20 x 30 mm (h x w) timber glazing beads minimum density 596 kg/m3
- (5) Minimum 105 x 50 mm outer timber framing section & 105 x 70 mm intermediate timber framing section. Minimum density 596 kg/m3
- (6) 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)
- Glazing pocket liner, Kuhn Flexpan 200, section 1.5 mm x glass thickness (mm)

Table 25 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
2037 (at 2940 high)	3675 (at 1630 wide)	5.99

Page 32 of 92 Signed C/045 & R/006

Pal ligg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 60 Climaplus Glass in Kawneer AA110 FR aluminium framed screens for periods of 60 minutes integrity and 15 minutes insulation

The glass shall be installed into the Kawneer AA110 FR aluminium framing system (which is covered appropriately by test or assessment evidence).

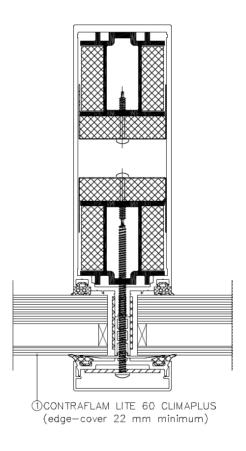


Table 26 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
2300 (at 3000 high)	3630 (at 1902 wide)	6.90

Page 33 of 92 Signed C/045 & R/006

fol agg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 90 Glass in steel framed screens for periods of 90 minutes integrity

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

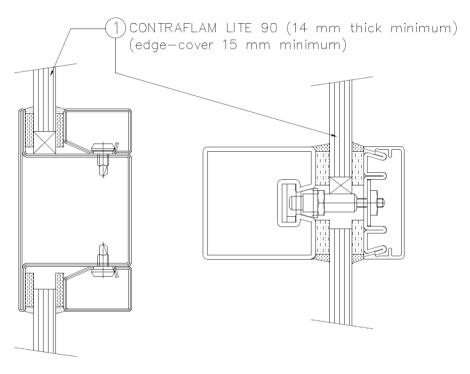


Table 27 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1800 (at 3500 high)	3500 (at 1800 wide)	6.3
2000 (at 3000 high)	3000 (at 2000 wide)	6.0

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

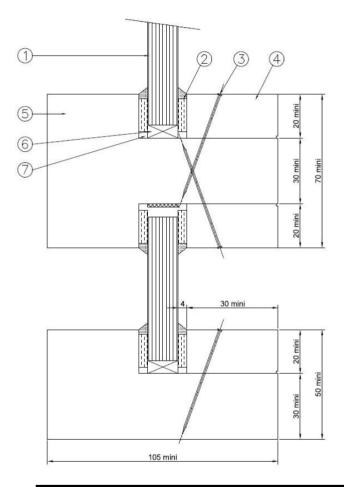
Page 34 of 92 Signed C/045 & R/006

Pal ligg-



CONTRAFLAM FIRE RESISTING GLASS Contraflam Lite 90 Glass in timber framed screens for periods of 90 minutes integrity

The glass shall be glazed utilising the following basic specification:



- (edge-cover 16 mm) (ONTRAFLAM LITE 90 (14 mm thick minimum)
- Kuhn Kerafix 2000 Tape 4 x 15 mm, topped with neutral curing silicone
- (3) Ø 2 x 50 mm long steel pins at 150 mm centres
- (4) Minimum 20 x 30 mm (h x w) timber glazing beads minimum density 596 kg/m3
- (5) Minimum 105 x 50 mm outer timber framing section & 105 x 70 mm intermediate timber framing section. Minimum density 596 kg/m3
- 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)
- Glazing pocket liner, Kuhn Flexpan 200, section 1.5 mm x glass thickness (mm)

Table 28 - Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1400 (at 2230 high)	2230 (at 1400 wide)	3.12

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

Page 35 of 92 Signed C/045 & R/006

Pul ligg-



CONTRAFLAM FIRE RESISTING GLASS Contraflam Lite 90 Climaplus Glass in steel framed screens for periods of 90 minutes integrity

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

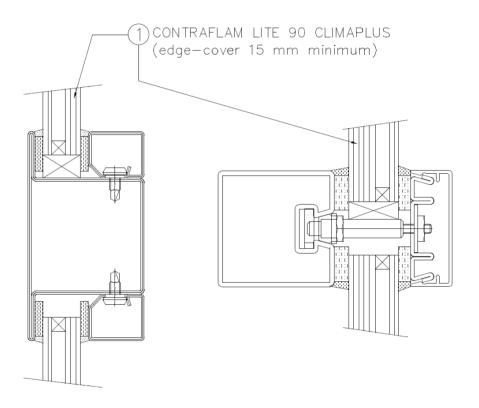


Table 29 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m²)
1800 (at 3260 high)	3800 (at 1500 wide)	5.70

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.

Page 36 of 92 Signed C/045 & R/006

fol 299-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 90 Climaplus Glass in steel framed screens for periods of 90 minutes integrity and 15 minutes insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

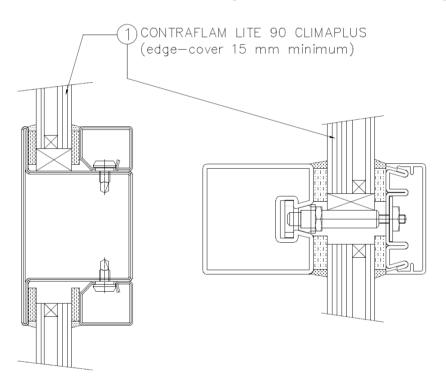


Table 30 - 1	Table 30 - Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)	
1000	2000	2.0	
(at 2000 wide)	(at 1000 wide)		

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.

Page 37 of 92 Signed C/045 & R/006

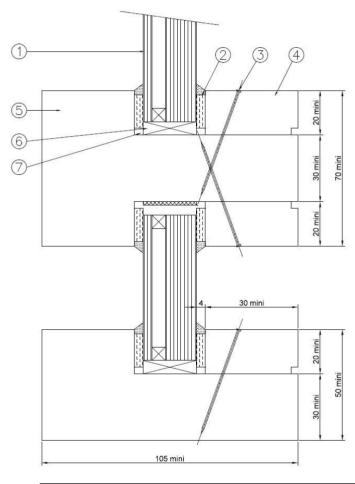
fal 299-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 90 Climaplus Glass in timber framed screens for periods of 90 minutes integrity

The glass shall be glazed utilising the following basic specification:



- 1 CONTRAFLAM LITE 90 CLIMAPLUS (edge-cover 14 mm)
- (2) Kuhn Kerafix 2000 Tape 4 x 15 mm, topped with neutral curing silicone
- ③Ø2 x 50 mm long steel pins at 150 mm centres
- (4) Minimum 20 x 30 mm (h x w) timber glazing beads minimum density 596 kg/m3
- (5) Minimum 105 x 50 mm outer timber framing section & 105 x 70 mm intermediate timber framing section. Minimum density 596 kg/m3
- 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)
- Glazing pocket liner, Kuhn Flexpan 200, section 1.5 mm x glass thickness (mm)

Table 31 – Maximum Permitted Glass Dimensions		
Max. Width (mm) Max. Height (mm) Max. Area (m2)		
1430 (at 1730 high)	1730 (at 1430 wide)	2.47

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.

Page 38 of 92 Signed C/045 & R/006

Pal ligg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 120 Glass in steel framed screens for periods of 120 minutes integrity

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

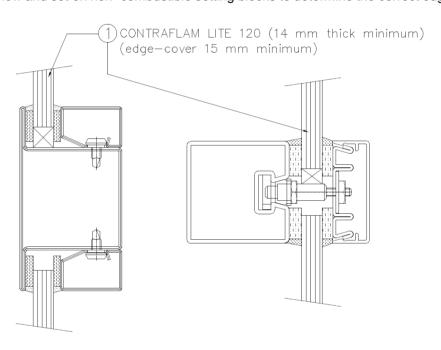


Table 32 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m²)
2000 (at 3000 high)	3000 (at 2000 wide)	6.0

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

Page 39 of 92 Signed C/045 & R/006

Pal legg-

certifire

CERTIFICATE No CF 811A VETROTECH SAINT-GOBAIN INTERNATIONAL

CONTRAFLAM FIRE RESISTING GLASS

Contraflam Lite 120 Climaplus (low-e or solar controlled coating) Glass in steel framed screens for periods of 120 minutes integrity

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

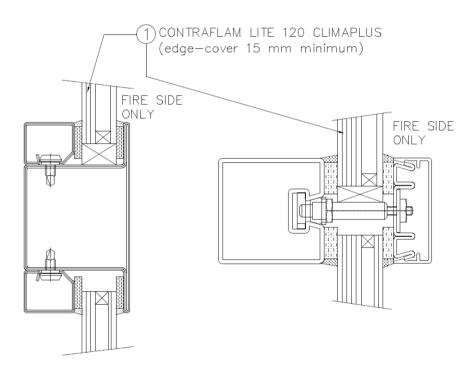


Table 33 -	Table 33 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)	
1480 (at 2880 high)	2880 (at 1480 wide)	4.26	

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.

Note: Where the counterpane of the IGU has a low-e or solar controlled coating, it shall be limited to use on the exposed face only. i.e. fire side to counter pane side only.

Page 40 of 92 Signed C/045 & R/006

fol ligg-

certifire

CERTIFICATE No CF 811A VETROTECH SAINT-GOBAIN INTERNATIONAL

CONTRAFI AM FIRE RESISTING GLASS

Contraflam Lite 120 Climalit (no low-e or solar controlled coating) Glass in steel framed screens for periods of 120 minutes integrity

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

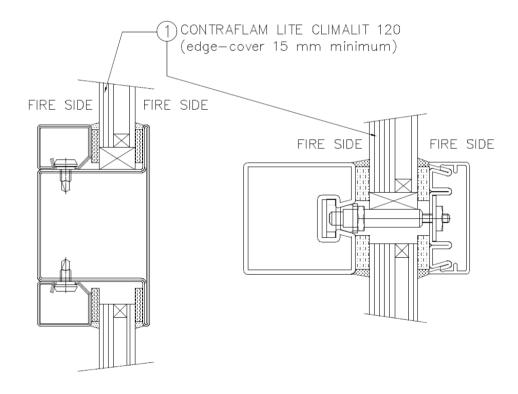


Table 34 – Maximum Permitted Glass Dimensions		
Max. Width (mm) Max. Height (mm) Max. Area (m2)		
1480 (at 2880 high)	2880 (at 1480 wide)	4.26

Note: Where the counterpane of the IGU does not incorporate a low-e or solar controlled coating, it shall be limited to internal (building) use only.

Note: This construction may be oriented in either direction. i.e. fire side to both sides.

Page 41 of 92 Signed C/045 & R/006

ful ligg-

22nd August 2011 Issued: Revised: 22 August 23 Revised: 23rd June 2023
Valid to: 24th January 2027



CONTRAFLAM FIRE RESISTING GLASS

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

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

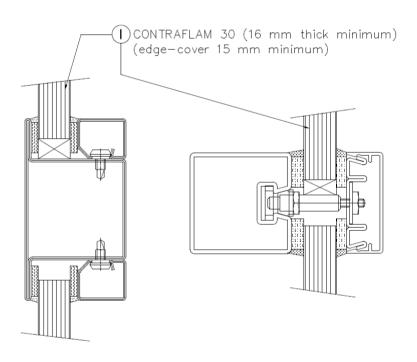


Table 35 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1750 (at 2400 high)	3000 (at 1400 wide)	4.2
3350 (at 1500 high)	3350 (at 1500 wide)	5.03
2300 (at 3800 high)	3800 (at 2300 wide)	8.74

Page 42 of 92 Signed C/045 & R/006

Pal legg-



CONTRAFLAM FIRE RESISTING GLASS

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

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

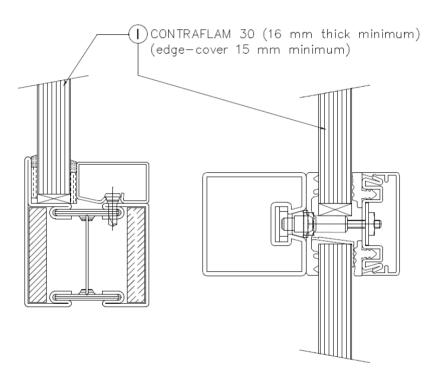


Table 36 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 3000 high)	3000 (at 1500 wide)	4.50

Page 43 of 92 Signed C/045 & R/006

Pal legg-



CONTRAFLAM FIRE RESISTING GLASS

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

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

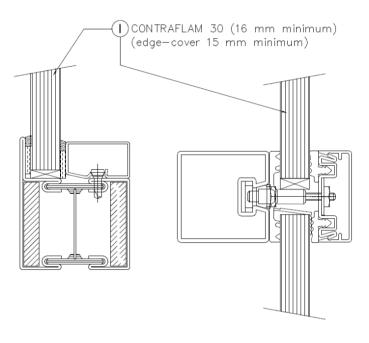


Table 37 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 3000 high)	3000 (at 1500 wide)	4.5

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

Page 44 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

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

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

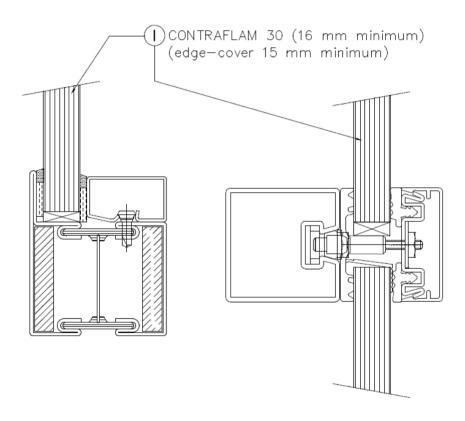


Table 38 –	Table 38 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m²)	
1500 (at 3000 high)	3000 (at 1500 wide)	4.5	

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

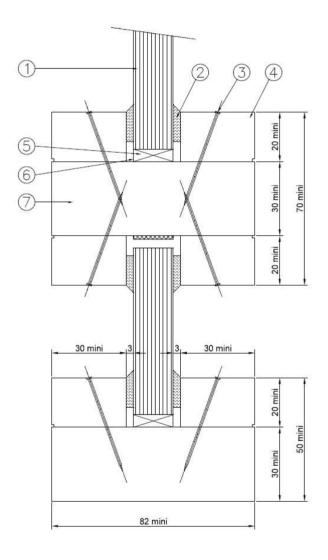
Page 45 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Glass in timber framed screens for a period of 30 minutes integrity and 30 minutes insulation

The glass shall be glazed utilising the following basic specification:



- (1) CONTRAFLAM 30 (16 mm thick minimum) (edge-cover 15 mm)
- (2) Odice Flexilodice SA Gasket 2 x 15 mm
- (3) Ø 1.8 x 40 mm long steel pins at 150 mm centres
- (4) Minimum 20 x 30 mm (h x w) timber glazing beads minimum density 424 kg/m3
- (5) 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)
- 6 Glazing pocket liner, Odice Flexilodice SA, section 2 mm x glass thickness (mm)
- Minimum 82 x 50 mm outer timber framing section & 82 x 70 mm intermediate timber framing section. Minimum density 424 kg/m3

Allowable glass sizes on next page.

Page 46 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Glass in timber framed screens for a period of 30 minutes integrity and 30 minutes insulation

The glass shall be glazed utilising the following basic specification:

Table 39 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 3000 high)	3000 (at 1500 wide)	4.5

Note: In the above table the Contraflam pane is limited to the 16mm thick product only.

Table 40 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1750 (at 2400 high)	3000 (at 1400 wide)	4.2
2750 (at 1500 high)	2750 (at 1500 wide)	4.125
2300 (at 3800 high)	3800 (at 2300 wide)	8.74

Note: In the above table the Contraflam pane may be the 16mm, 18mm or 22mm thick product but may only be floor mounted. i.e. it may not be supported, from below, by a transom profile due to weight concerns.

Frame drawing on previous page.

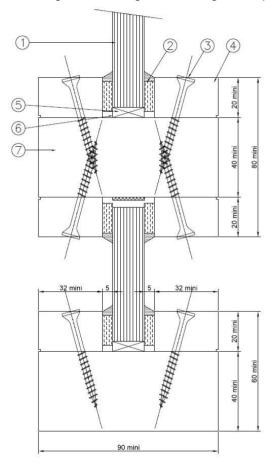
Page 47 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

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

The glass shall be glazed utilising the following basic specification:



- ① CONTRAFLAM 30 (16 mm thick minimum) (edge-cover 15 mm)
- Fiberfrax Ceramic Tape 15 x 6 mm, topped with neutral curing silicone
- 3 38 mm long steel screws at 300 mm centres (30° to glass)
- ④ Minimum 20 x 32 mm (h x w) timber glazing beads minimum density 680 kg/m3
- (5) Non-combustible / hardwood setting bloabaglass thickness x 5 x 80 mm (w x h x d) (2 pieces per glass, on the bottom only)
- 6 Glazing pocket liner, Kuhn Flexpan 200, section 2 mm x glass thickness (mm)
- Minimum 90 x 60 mm outer timber framing section & 90 x 80 mm intermediate timber framing section. Minimum density 680 kg/m3

Table 41 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1750 (at 2400 high)	3000 (at 1400 wide)	4.2
2750 (at 1500 high)	2750 (at 1500 wide)	4.125
2300 (at 3800 high)	3800 (at 2300 wide)	8.74

Page 48 of 92 Signed C/045 & R/006

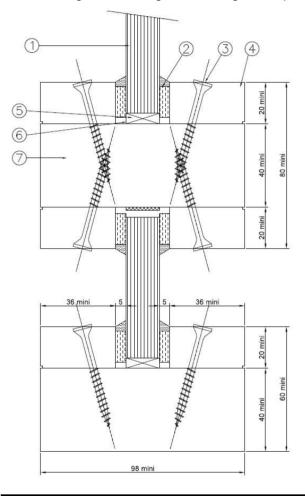
Pol Ragg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Glass in timber framed screens for periods of 60 minutes integrity and 30 minutes insulation

The glass shall be glazed utilising the following basic specification:



- (1) CONTRAFLAM 30 (16 mm thick minimum) (edge-cover 15 mm)
- Piberfrax Ceramic Tape 15 x 6 mm, topped with neutral curing silicone
- 3 38 mm long steel screws at 300 mm centres (30° to glass)
- (4) Minimum 20 x 36 mm (h x w) timber glazing beads minimum density 680 kg/m3
- (5) 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)
- 6 Glazing pocket liner, Kuhn Flexpan 200, section 2 mm x glass thickness (mm)
- Minimum 98 x 60 mm outer timber framing section & 98 x 80 mm intermediate timber framing section. Minimum density 680 kg/m3

Table 42 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 3000 high)	3000 (at 1500 wide)	4.50

Page 49 of 92 Signed C/045 & R/006

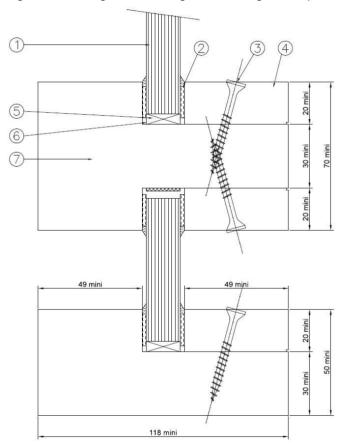
Issued: Revised Valid to



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Glass in timber framed screens for periods of 90 minutes integrity and 30 minutes insulation

The glass shall be glazed utilising the following basic specification:



- (1) CONTRAFLAM 30 (16 mm thick minimum) (edge-cover 15 mm)
- Fiberfrax Ceramic Tape 15 x 4 mm, topped with neutral curing silicone
- 3 45 mm long steel screws at 250 mm centres (30° to glass)
- (4) Minimum 20 x 49 mm (h x w) timber glazing beads minimum density 750 kg/m3
- (5) 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)
- 6 Glazing pocket liner, Kuhn Flexpan 200, section 2 mm x glass thickness (mm)
- Minimum 118 x 50 mm outer timber framing section & 118 x 70 mm intermediate timber framing section. Minimum density 750 kg/m3

Table 43 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 3000 high)	3000 (at 1500 wide)	4.5

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

Page 50 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Glass in Aluprof MB-78EI aluminium framed screens for a period of 30 minutes integrity and 30 minutes insulation

The glass shall be installed into the Aluprof MB-78EI aluminium framing system (which is covered appropriately by test or assessment evidence).

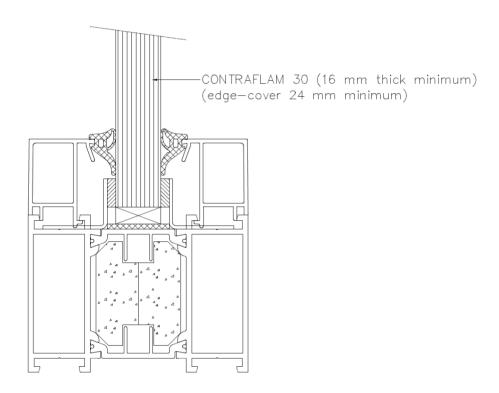


Table 44 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1875 (at 3000 high)	3750 (at 1500 wide)	5.62
3125 (at 1500 high)	1875 (at 2500 wide)	4.69

Page 51 of 92 Signed C/045 & R/006

fol lygg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Glass in Reynaers CS77-FP aluminium framed screens for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be installed into the Reynaers CS77-FP aluminium framing system (which is covered appropriately by test or assessment evidence).

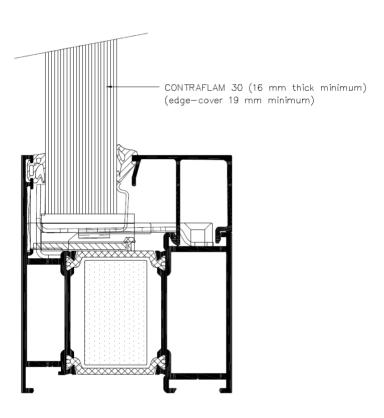


Table 45 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
2203 (at 3200 high)	3616 (at 1950 wide)	7.05

Page 52 of 92 Signed C/045 & R/006

Pal ligg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Glass in Reynaers CW50-FP aluminium framed screens for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be installed into the Reynaers CW50-FP aluminium framing system (which is covered appropriately by test or assessment evidence).

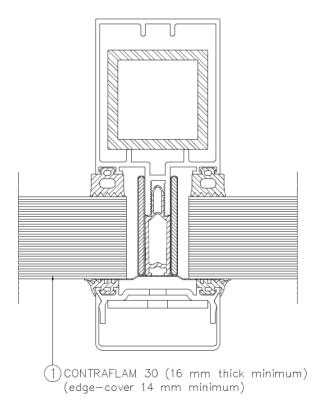


Table 46 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
2300 (at 3339 high)	3800 (at 2021 wide)	7.68

Page 53 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Glass in Schuco ADS80 FR30 aluminium framed screens for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be installed into the Schuco ADS80 FR30 aluminium framing system (which is covered appropriately by test or assessment evidence).

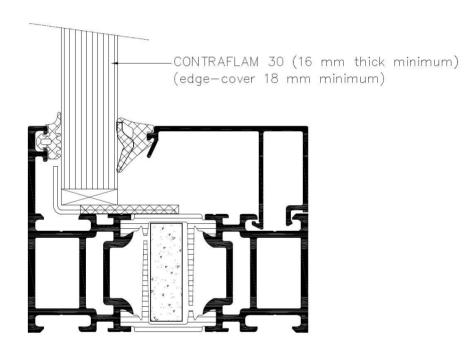


Table 47 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
2502 (at 1400 high)	1442 (at 2430 wide)	3.50
1442 (at 3000 high)	3090 (at 1400 wide)	4.32

Page 54 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Glass in Schuco FW 50+ BF aluminium framed screens for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be installed into the Schuco FW 50+ BF aluminium framing system (which is covered appropriately by test or assessment evidence).

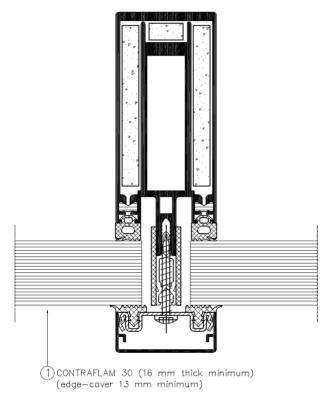


Table 48 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
2300 (at 3800 high)	3800 (at 2300 wide)	8.74
2875 (at 2300 high)	2300 (at 2875 wide)	6.61

Page 55 of 92 Signed C/045 & R/006

fol ligg-



CONTRAFLAM FIRE RESISTING GLASS

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

The glass shall be installed into the Wicona Wicstyle 77FP aluminium framing system (which is covered appropriately by test or assessment evidence).

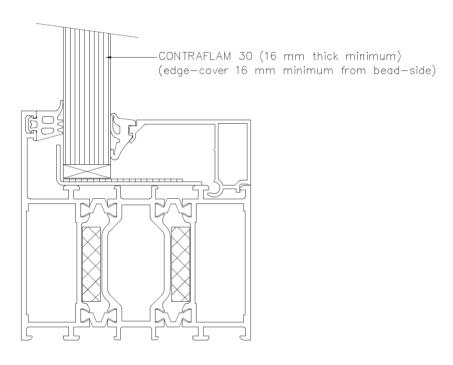


Table 49 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1802 (at 3000 high)	3600 (at 1502 wide)	5.40
2715 (at 1500 high)	1800 (at 2263 wide)	4.07

Page 56 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

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

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

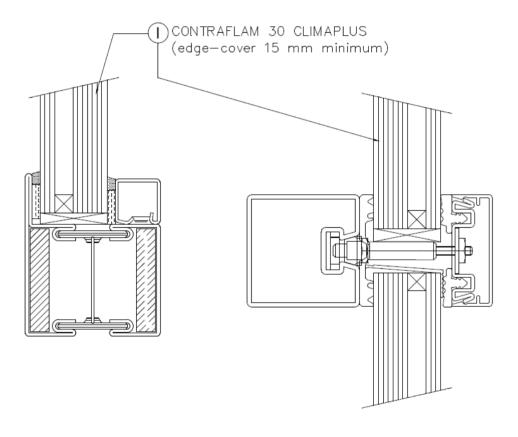


Table 50 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
2300 (at 3800 high)	3800 (at 2300 wide)	8.74
3350 (at 1500 high)	3350 (at 1500 wide)	5.03

Page 57 of 92 Signed C/045 & R/006

Pol Agg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Climaplus Glass in steel framed screens for periods of 60 minutes integrity and 30 minutes insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

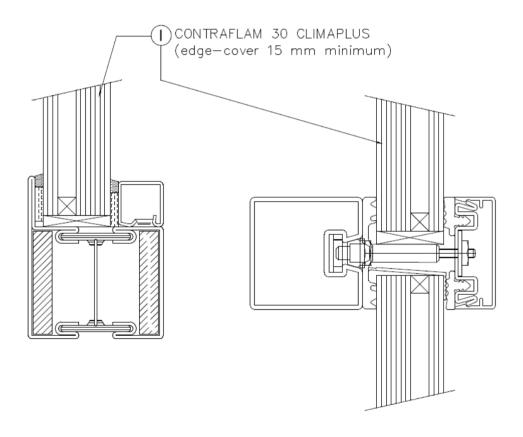


Table 51 – Maximum Permitted Glass Dimensions		
Max. Width (mm) Max. Height (mm) Max. Area (m2)		
1300 (at 2300 high)	2300 (at 1300 wide)	2.99

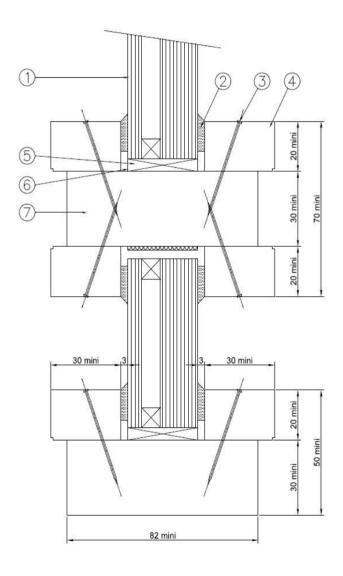
Page 58 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Climaplus Glass in timber framed screens for a period of 30 minutes integrity and 30 minutes insulation

The glass shall be glazed utilising the following basic specification:



- (edge-cover 15 mm)
- (2) Odice Flexilodice SA Gasket 2 x 15 mm
- (3) Ø 1.8 x 40 mm long steel pins at 150 mm centres
- (4) Minimum 20 x 30 mm (h x w) timber glazing beads minimum density 424 kg/m3
- (5) 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)
- 6 Glazing pocket liner, Odice Flexilodice SA, section 2 mm x glass thickness (mm)
- Minimum 82 x 50 mm outer timber framing section & 82 x 70 mm intermediate timber framing section. Minimum density 424 kg/m3

Allowable glass sizes on next page.

Page 59 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Climaplus Glass in timber framed screens for a period of 30 minutes integrity and 30 minutes insulation

The glass shall be glazed utilising the following basic specification:

Table 52 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 3000 high)	3000 (at 1500 wide)	4.5

Note: In the above table the Contraflam pane is limited to the 16mm thick product only.

Table 53 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
2300 (at 3800 high)	3800 (at 2300 wide)	8.74
2750 (at 1500 high)	2750 (at 1500 wide)	4.125

Note: In the above table the Contraflam pane may be the 16mm, 18mm or 22mm thick product but may only be floor mounted. i.e. it may not be supported, from below, by a transom profile due to weight concerns.

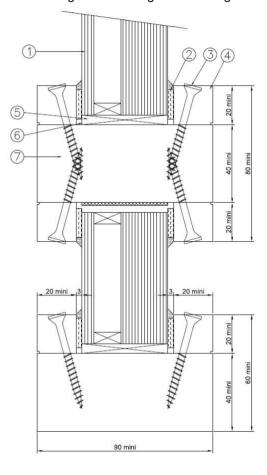
Frame drawing on previous page.



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Climaplus Glass in timber framed screens for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be glazed utilising the following basic specification:



- ① CONTRAFLAM 30 CLIMAPLUS (edge-cover 15 mm)
- Piberfrax Ceramic Tape 15 x 3 mm, topped with neutral curing silicone
- 3 45 mm long steel screws at 600 mm centres (30° to glass)
- (4) Minimum 20 x 20 mm (h x w) timber glazing beads minimum density 600 kg/m3
- (5) 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)
- 6 Glazing pocket liner, Kuhn Flexpan 200, section 2 mm x glass thickness (mm)
- Minimum 90 x 60 mm outer timber framing section & 90 x 80 mm intermediate timber framing section. Minimum density 600 kg/m3

Table 54 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
2300 (at 3800 high)	3800 (at 2300 wide)	8.74
2750 (at 1500 high)	2750 (at 1500 wide)	4.125

Page 61 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Climaplus Glass in Kawneer AA100 FR aluminium framed screens for a period of 30 minutes integrity and 30 minutes insulation

The glass shall be glazed utilising the following basic specification:

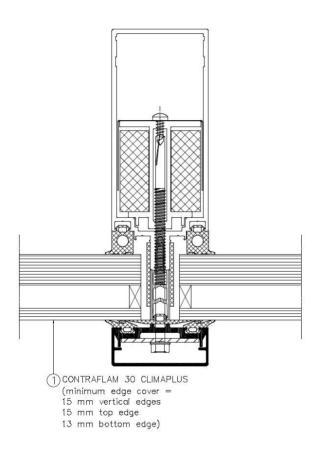


Table 55 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
2787 (at 1403 high)	1753 (at 2230 wide)	3.91
1787 (at 2503 high)	3128 (at 1430 wide)	4.47

Page 62 of 92 Signed C/045 & R/006

Pul ligg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Climaplus Glass in Reynaers CS77-FP aluminium framed screens for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be installed into the Reynaers CS77-FP aluminium framing system (which is covered appropriately by test or assessment evidence).

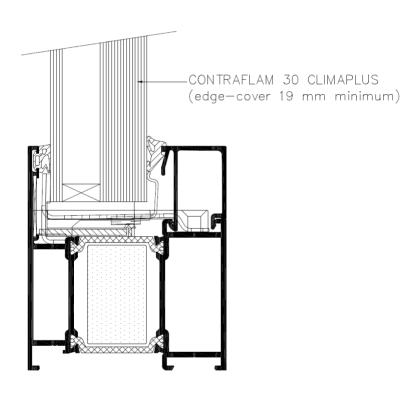


Table 56 – Maximum Permitted Glass Dimensions		
Max. Width (mm) Max. Height (mm) Max. Area (m2)		
1017 (at 2500 high)	2825 (at 900 wide)	2.54

Page 63 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Climaplus Glass in Reynaers CW50-FP aluminium framed screens for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be installed into the Reynaers CW50-FP aluminium framing system (which is covered appropriately by test or assessment evidence).

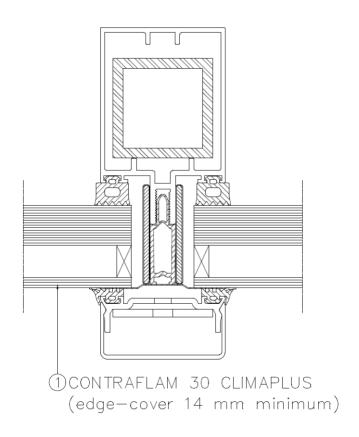


Table 57 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
2300 (at 3339 high)	3800 (at 2021 wide)	7.68

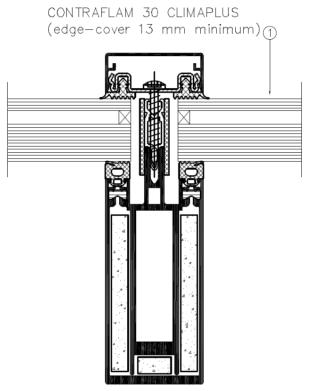
CONTRAFLAM FIRE RESISTING GLASS

Page 64 of 92 Signed C/045 & R/006



Contraflam 30 Climaplus Glass in Schuco FW 50+ BF aluminium framed screens, in a horizontal orientation, for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be installed into the Schüco FW 50+ BF aluminium framing system (which is covered appropriately by test or assessment evidence).



The construction may be installed between 0° and 80° (from the horizontal).

Table 58 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 2400 high)	3000 (at 1200 wide)	3.60
2750 (at 1100 high)	1375 (at 2200 wide)	3.02

Page 65 of 92 Signed C/045 & R/006

Pal ligg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Climatop Glass in steel framed screens for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

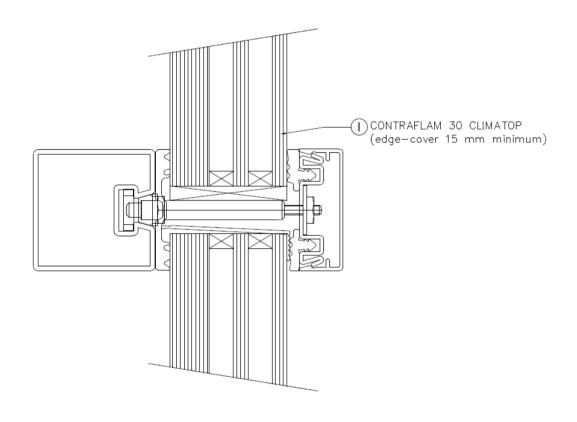


Table 59 – Maximum Permitted Glass Dimensions		
Max. Width (mm) Max. Height (mm) Max. Area (m2)		
1800 (at 3000 high)	3600 (at 1500 wide)	5.40

Page 66 of 92 Signed C/045 & R/006

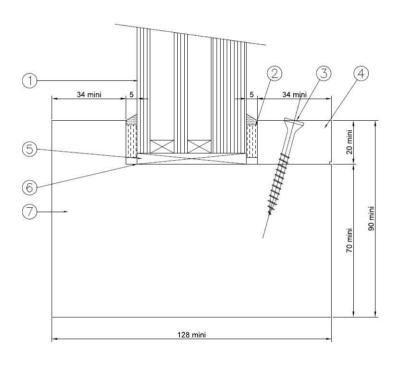
Pal ligg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Climatop Glass in timber framed screens for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be glazed utilising the following basic specification:



- 1 CONTRAFLAM 30 CLIMATOP (edge-cover 15 mm)
- ② Fiberfrax Ceramic Tape 15 x 6 mm, topped with neutral curing silicone
- (3) 45 mm long steel screws at 250 mm centres (30° to glass)
- (4) Minimum 20 x 34 mm (h x w) timber glazing beads minimum density 750 kg/m3
- (5) 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)
- 6 Glazing pocket liner, Kuhn Flexpan 200, section 2 mm x glass thickness (mm)
- Minimum 128 x 90 mm outer timber framing section & 118 x 110 mm intermediate timber framing section. Minimum density 750 kg/m3

Table 60 - Maximum Permitted Glass Dimensions		
Max. Width (mm) Max. Height (mm) Max. Area (m2)		
1800 (at 3000 high)	3600 (at 1500 wide)	5.40

Page 67 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Contour Glass in steel framed screens for periods of 120 minutes integrity and 30 minutes insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

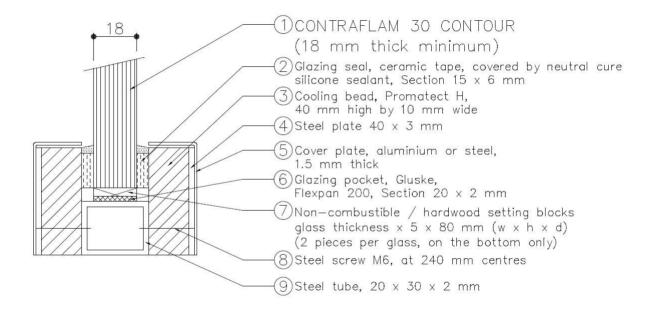


Table 61 – Maximum Permitted Glass Dimensions		
Max. Width (mm) Max. Height (mm) Max. Area (m2)		
922 (at 1890 high)	1890 (at 922 wide)	1.74

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

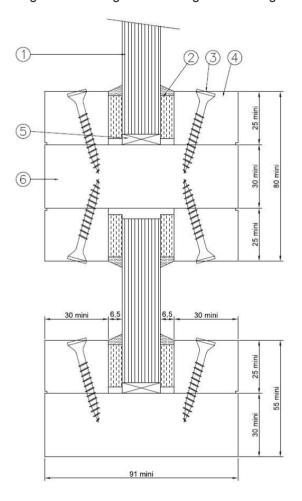
Page 68 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30 Contour Glass in timber framed screens for periods of 30 minutes integrity and 30 minutes insulation

The glass shall be glazed utilising the following basic specification:



- (1) CONTRAFLAM 30 CONTOUR (18 mm thick minimum) (minimum edge-cover = 15 mm vertical edges 20 mm top edge 20 mm bottom edge)
- Fiberfrax Ceramic Tape 20 x 8 mm, topped with neutral curing silicone
- 3 40 mm long steel screws at 200 mm centres (30° to glass)
- (4) Minimum 25 x 30 mm (h x w) timber glazing beads minimum density 600 kg/m3
- (5) 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)
- ⑥ Minimum 91 x 55 mm outer timber framing section & 91 x 55 mm intermediate timber framing section. Minimum density 600 kg/m3

Table 62 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
992 (at 1830 high)	1830 (at 992 wide)	1.81

Page 69 of 92 Signed C/045 & R/006

Pal ligg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 30-2 Glass in steel framed screens for periods of 60 minutes integrity and 30 minutes insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

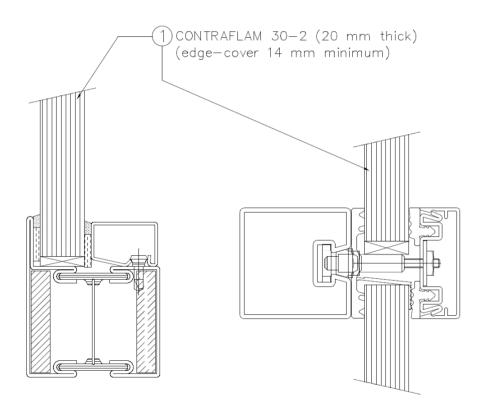


Table 63 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m²)
2300 (at 4600 high)	4600 (at 2300 wide)	10.58
2438 (at 2300 high)	2300 (at 2438 wide)	5.6

Page 70 of 92 Signed C/045 & R/006

Pal ligg-



CONTRAFLAM FIRE RESISTING GLASS

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

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

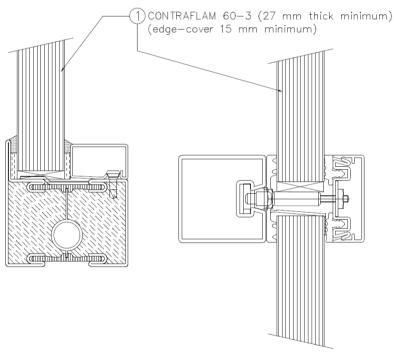


Table 64 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m²)
2300 (at 4600 high)	4600 (at 2300 wide)	10.58
2875 (at 2300 high)	2300 (at 2875 wide)	6.61

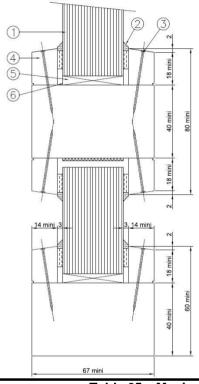
Page 71 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

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

The glass shall be glazed utilising the following basic specification:



- ① CONTRAFLAM 60-3 (27 mm thick minimum) (edge-cover 15 mm)
- (2) Kuhn Kerafix 2000 Tape 3 x 15 mm, topped with neutral curing silicone
- ③Ø 1.5 x 35 mm long steel pins at 150 mm centres
- (4) Minimum 20 x 14 mm (h x w) timber glazing beads minimum density 600 kg/m3
- (5) 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)
- 6 Glazing pocket liner, Kuhn Flexpan 200, section 2 mm x glass thickness (mm)
- Minimum 67 x 60 mm outer timber framing section & 67 x 80 mm intermediate timber framing section. Minimum density 600 kg/m3

Table 65 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
2700 (at 1400 high)	1400 (at 2700 wide)	3.78
2153 (at 3499 high)	3884 (at 1940 wide)	7.53
2300 (at 3800 high)	3800 (at 2300 wide)	8.74

Page 72 of 92 Signed C/045 & R/006

Pal ligg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 60-3 Glass in Aluprof MB-78EI aluminium framed screens for periods of 60 minutes integrity and 60 minutes insulation

The glass shall be installed into the Aluprof MB-78EI aluminium framing system (which is covered appropriately by test or assessment evidence).

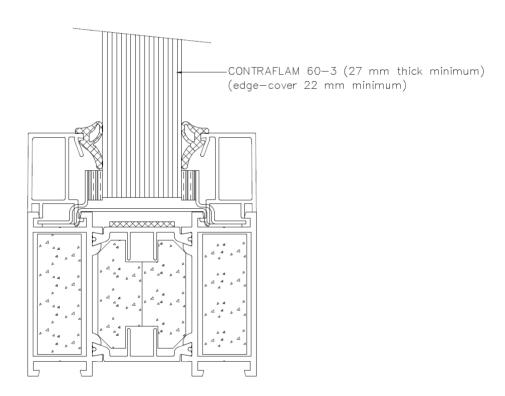


Table 66 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1620 (at 3000 high)	3240 (at 1500 wide)	4.86

Lgg-

Page 73 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 60-3 Glass in Aluprof MB-SR50El aluminium framed screens for periods of 60 minutes integrity and 60 minutes insulation

The glass shall be installed into the Aluprof MB-SR50EI aluminium framing system (which is covered appropriately by test or assessment evidence).

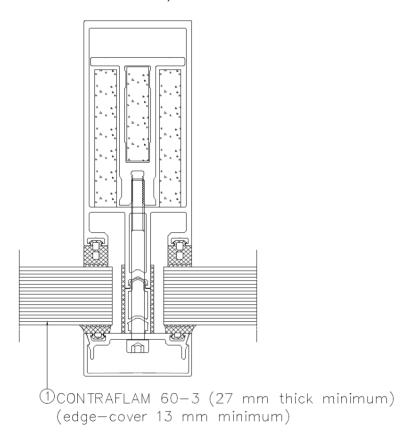


Table 67 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1665 (at 3000 high)	3330 (at 1500 wide)	4.99
2489 (at 1310 high)	1519 (at 2146 wide)	3.26

Issued: 22nd August 2011 Revised: 23rd June 2023 Valid to: 24th January 2027

Page 74 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 60-3 Glass in Reynaers CS77-FP aluminium framed screens for periods of 60 minutes integrity and 60 minutes insulation

The glass shall be installed into the Reynaers CS77-FP aluminium framing system (which is covered appropriately by test or assessment evidence).

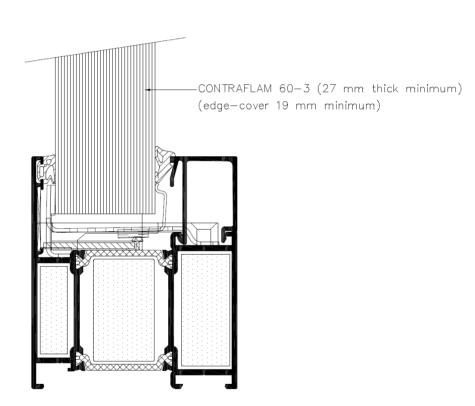


Table 68 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1620 (at 3000 high)	3240 (at 1500 wide)	4.86

92 Signed L

Issued: 22nd August 2011 Revised: 23rd June 2023 Valid to: 24th January 2027

Page 75 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 60-3 Glass in Reynaers CW50-FP aluminium framed screens for periods of 60 minutes integrity and 60 minutes insulation

The glass shall be installed into the Reynaers CW50-FP aluminium framing system (which is covered appropriately by test or assessment evidence).

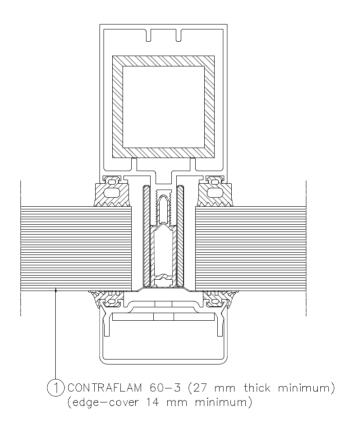


Table 69 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1590 (at 3200 high)	3392 (at 1500 wide)	5.09

Page 76 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 60-3 Glass in Schuco ADS80 FR60 aluminium framed screen for periods of 60 minutes integrity and 60 minutes insulation

The glass shall be installed into the Schuco ADS80 FR60 aluminium framing system (which is covered appropriately by test or assessment evidence).

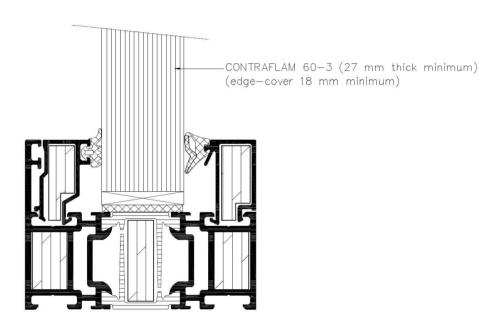


Table 70 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1436 (at 2500 high)	2700 (at 1330 wide)	3.59
2700 (at 1400 high)	1512 (at 2500 wide)	3.78

Issued: 22nd August 2011 Revised: 23rd June 2023 Valid to: 24th January 2027

Page 77 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 60-3 Glass in Schuco FW50+ FR60 aluminium framed screen for periods of 60 minutes integrity and 60 minutes insulation

The glass shall be installed into the Schuco FW 50+ FR60 aluminium framing system (which is covered appropriately by test or assessment evidence).

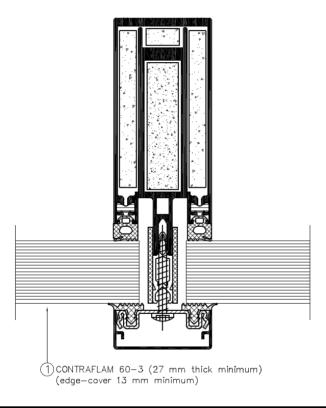


Table 71 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1845 (at 3000 high)	3690 (at 1500 wide)	5.54
2044 (at 1155 high)	1421 (at 1662 wide)	2.36

Page 78 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

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

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

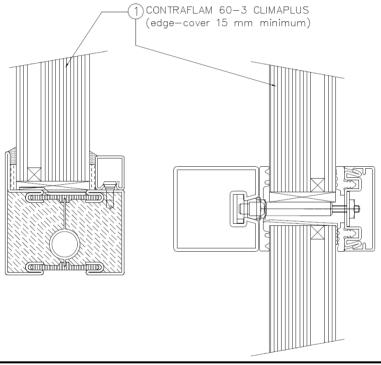


Table 72 - Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 3200 high)	3200 (at 1500 wide)	4.8
2500 (at 1400 high)	1400 (at 2500 wide)	3.5

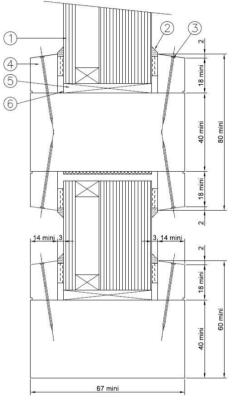
92 Signed



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 60-3 Climaplus Glass in timber framed screens for periods of 60 minutes integrity and 60 minutes insulation

The glass shall be glazed utilising the following basic specification:



- (1) CONTRAFLAM 60-3 CLIMAPLUS (edge-cover 15 mm)
- Kuhn Kerafix 2000 Tape 3 x 15 mm, topped with neutral curing silicone
- 3 Ø 1.5 x 35 mm long steel pins at 150 mm centres
- (4) Minimum 20 x 14 mm (h x w) timber glazing beads minimum density 600 kg/m3
- (5) 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)
- 6 Glazing pocket liner, Kuhn Flexpan 200, section 2 mm x glass thickness (mm)
- Minimum 71 x 60 mm outer timber framing section & 71 x 80 mm intermediate timber framing section. Minimum density 600 kg/m3

Table 73 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 3200 high)	3200 (at 1500 wide)	4.8
2500 (at 1400 high)	1400 (at 2500 wide)	3.5

Page 80 of 92 Signed C/045 & R/006

fol ligg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 60-3 Climaplus Glass in Aluprof MB-SR50El aluminium framed screens for periods of 60 minutes integrity and 60 minutes insulation

The glass shall be installed into the Aluprof MB-SR50EI aluminium framing system (which is covered appropriately by test or assessment evidence).

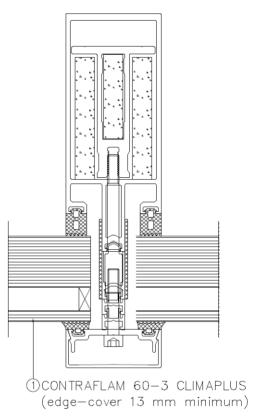


Table 74 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 3200 high)	3200 (at 1500 wide)	4.8
1887 (at 1200 high)	1332 (at 1700 wide)	2.26

Issued: 22nd August 2011 Revised: 23rd June 2023 Valid to: 24th January 2027

Page 81 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 60-3 Climaplus Glass in Kawneer AA100FR aluminium framed screens for periods of 60 minutes integrity and 60 minutes insulation

The glass shall be installed into the Kawneer AA100 FR aluminium framing system (which is covered appropriately by test or assessment evidence).

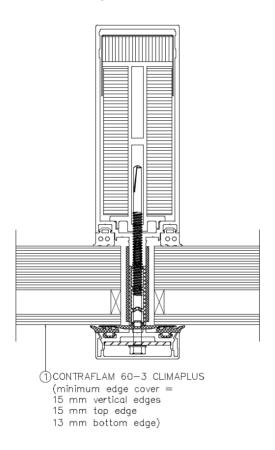


Table 75 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1480 (at 2978 high)	2978 (at 1480 wide)	4.40

Page 82 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 60-3 Climaplus Glass in Reynaers CS77-FP aluminium framed screens for periods of 60 minutes integrity and 60 minutes insulation

The glass shall be installed into the Reynaers CS77-FP aluminium framing system (which is covered appropriately by test or assessment evidence).

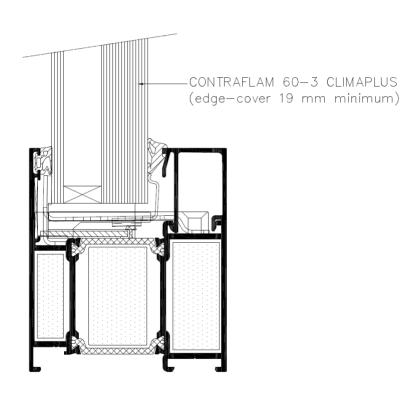


Table 76 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 2700 high)	2700 (at 1500 wide)	4.05

Page 83 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 60-3 Climaplus Glass in Reynaers CW50-FP aluminium framed screens for periods of 60 minutes integrity and 60 minutes insulation

The glass shall be installed into the Reynaers CW50-FP aluminium framing system (which is covered appropriately by test or assessment evidence).

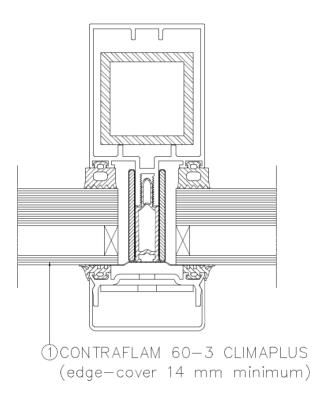


Table 77 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 3200 high)	3200 (at 1500 wide)	4.8

Page 84 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 60-3 Climaplus Glass in Schuco ADS80 FR60 aluminium framed screens for periods of 60 minutes integrity and 60 minutes insulation

The glass shall be installed into the Schuco ADS80 FR60 aluminium framing system (which is covered appropriately by test or assessment evidence).

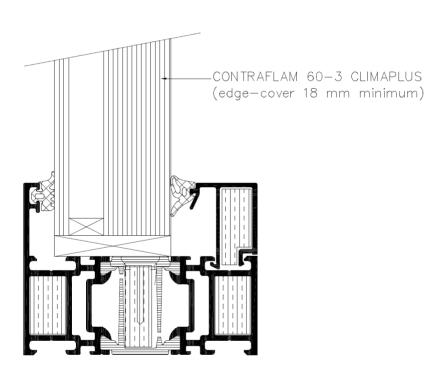


Table 78 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1330 (at 2500 high)	2500 (at 1330 wide)	3.33
2500 (at 1400 high)	1400 (at 2500 wide)	3.5

Issued: 22nd August 2011 Revised: 23rd June 2023 Valid to: 24th January 2027

Page 85 of 92 Signed C/045 & R/006

Pol ligg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 60-3 Climaplus Glass in Schuco FW 50+ FR60 aluminium framed screens for periods of 60 minutes integrity and 60 minutes insulation

The glass shall be installed into the Schuco FW50+ FR60 aluminium framing system (which is covered appropriately by test or assessment evidence).

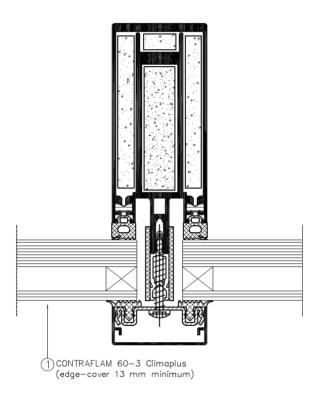


Table 79 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 3200 high)	3200 (at 1500 wide)	4.8
2153 (at 1155 high)	1444 (at 1722 wide)	2.49

Issued: 22nd August 2011 Revised: 23rd June 2023 Valid to: 24th January 2027

Page 86 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

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

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

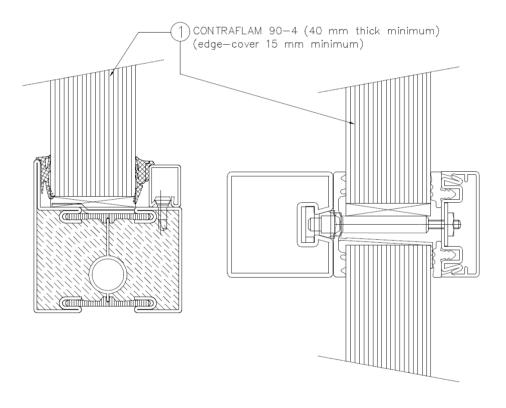


Table 80 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 3000 high)	3000 (at 1500 wide)	4.5

Page 87 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 90-4 Climaplus Glass in steel framed screens for periods of 90 minutes integrity and 90 minutes insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

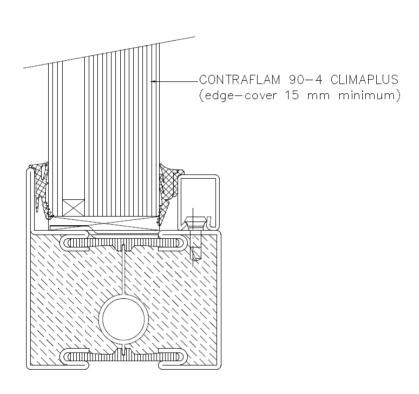


Table 81 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 3000 high)	3000 (at 1500 wide)	4.5

Page 88 of 92 Signed



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 120-5 Glass in steel framed screens for periods of 120 minutes integrity and 120 minutes insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

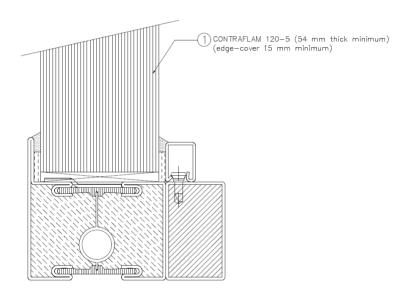


Table 82 - Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1800 (at 3500 high)	3500 (at 1800 wide)	6.3

92 Signed



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 120-5 Climaplus in steel framed screens for periods of 120 minutes integrity and 120 minutes insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

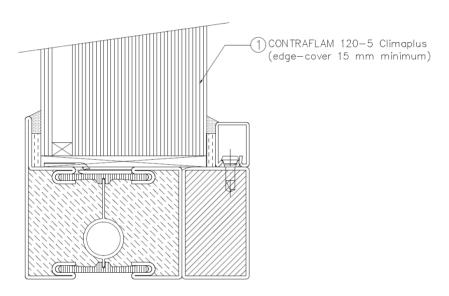


Table 83 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 3000 high)	3000 (at 1500 wide)	4.50

Page 90 of 92 Signed C/045 & R/006



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 120-6 Glass in steel framed screens for periods of 120 minutes integrity and 120 minutes insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

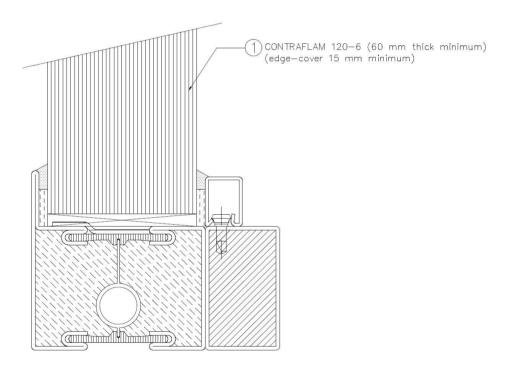


Table 84 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 3000 high)	3000 (at 1500 wide)	4.5
2975 (at 1500 high)	1500 (at 2975 wide)	4.46

Issued: 22nd August 2011 Revised: 23rd June 2023 Valid to: 24th January 2027

Page 91 of 92 Signed C/045 & R/006

Pal ligg-



CONTRAFLAM FIRE RESISTING GLASS

Contraflam 120-6 Climaplus Glass in steel framed screens for periods of 120 minutes integrity and 120 minutes insulation

The glass shall be installed into a previously tested or CERTIFIRE approved framing system (which is covered appropriately by test or assessment evidence) using pressure plate glazing, screw-fixed or clip-on retaining beads, see examples 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.

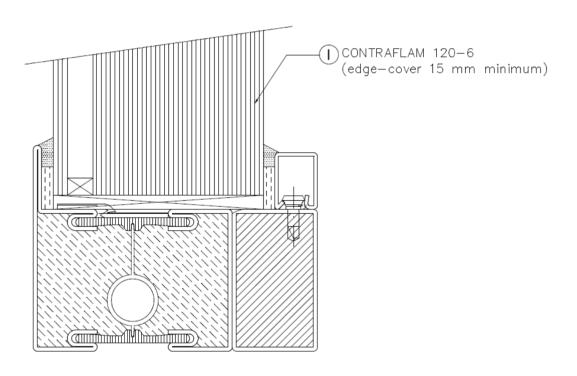


Table 85 – Maximum Permitted Glass Dimensions		
Max. Width (mm)	Max. Height (mm)	Max. Area (m2)
1500 (at 3000 high)	3000 (at 1500 wide)	4.5

Page 92 of 92 Signed C/045 & R/006