

FIRE RESISTANT GLASS



GLASS UNLIMITED

PYROBEL

Architects and designers are increasingly looking for larger glazed screens and doors to provide buildings with new aesthetic designs and more comfort and safety for the people who use them. But in many cases, these glazings must be fire resistant to comply with the building regulations which aim to stop the spread of fire and to enable a safe evacuation of the building.

To fulfil these requirements, AGC Flat Glass Europe has developed the Pyrobel range of fire resistant glasses, tested and approved according BS 476:Part22:1987, on both Integrity and Insulation criteria.

Pyrobel is a fully transparent fire resistant glass, available in large sizes, which offers valuable sound reduction properties and complies with the safety requirements of BS 6206.

PYROBEL

Pyrobel is a multi-laminated glass assembled with clear intumescent interlayers.

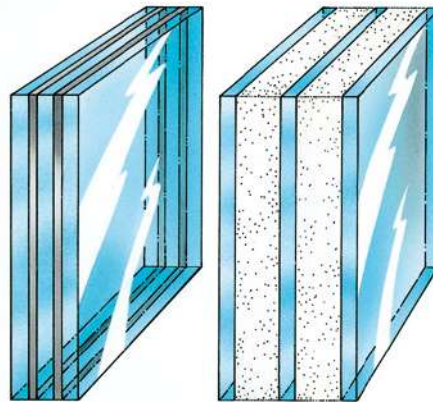
In case of fire, these interlayers expand at around 120°C and transform into a rigid and opaque shield.

Once formed, this opaque shield enables the glazing to meet:

- the integrity criterion, as the glazing will not collapse, nor let any flames, smoke or hot gases pass through.
- the insulation criterion, as no radiant nor conductive heat are transmitted.

Pyrobel provides a complete protection against fire:

- the integrity function ensures that the fire will not spread to adjacent rooms, stairs, floors or buildings;
- the insulation function avoids the danger or combustible materials being ignited on the protected side and ensures a safe and panic-free evacuation as people will not see any flames nor feel any heat.



The interlayers expand at around 120°C and transform into a rigid and opaque shield.

APPLICATIONS

Pyrobel can be used in all applications where building regulations stipulate a specific level of fire resistance and where natural light and clear visibility are required, such as:

- hospitals
- schools
- hotels, restaurants
- stores, shopping centres
- office buildings, computers rooms
- industrial buildings, warehouses, laboratories
- airports
- ...



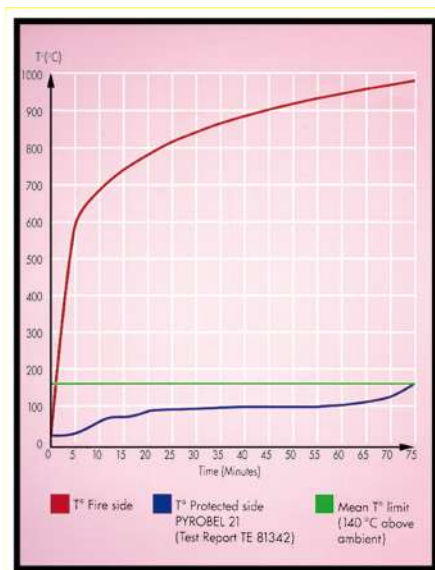
ADVANTAGES

PYROBEL

- is a fire resistant glass that complies with the integrity and insulation criteria;
- is a clear glass that provides distortion free vision. It does not incorporate any wire and its light transmission is comparable to clear float glass;
- is a safety glass that meets the requirements of BS 6206;
- has excellent sound reduction properties;
- is available in large sizes, up to 270 cm height;
- is available in very small sizes, without any minimum;
- is basically designed for internal vertical glazing applications but can also be supplied as an external grade single or double glazing, incorporating a UV filter, provided that our external glazing instructions are respected;
- is available in special constructions incorporating other AGC Flat Glass Europe products such as solar-control, low emissivity, patterned or tinted glass;
- is available incorporated into antibandit and bullet resistant glass according to specifications;
- is available in rectangular, rectilinear or curvilinear shapes;
- can be cut to size from stock and its readily available from our accredited Pyrobel stockists;
- can be easily fitted into most fire screens and doors.

FIRE REGULATIONS

Fire regulations are specified by several national and international standards. Building regulations, By-laws and Codes describe the specific level of fire protection required (criteria, period of time). Pyrobel glass is only a part of a complete fire resistant system. It is the responsibility of the users to ensure that the fire resistant element as a whole satisfies the current regulations, and to obtain the approval from the competent authorities. AGC Flat Glass Europe disclaim all liability should Pyrobel be installed in systems that do not comply with the regulations. Pyrobel has been successfully tested according to most European standards, including BS 476: Part 22: 1987 (which, together with BS 476: Parts 20, 21, 23 and 24 supersedes BS 476: Part 8: 1972).



Time/Temperature Curve



Fire Test

QUALITY

The Pyrobel quality and performances are carefully controlled at each step of production. Due to the nature of its special intumescent interlayers, Pyrobel may exhibit or develop some minor imperfections such as small inclusions and bubbles, a slight distortion and a light haze. These features which do not affect the free vision nor the fire resistance of the glazing shall not be considered as defects provided the variation of haze and light transmission do not exceed 5%. The edge area may include larger air bubbles or imperfections that will be hidden by the rebates.



FIRE TEST

The element to be fire tested is placed in front of a furnace that is heated according to the Time/Temperature Curve described by the respective standards.

Two different criteria are considered:

INTEGRITY

i.e. the ability of the element to prevent the passage of flames or hot gases. This criterion is assessed either visually (no collapsing or sustained flaming), by means of a cotton fibre pad (no glowing or flaming) or by gauges that may not penetrate through cracks or tears in the glazing.

INSULATION

i.e. the ability of the element to stop conductive and radiant heat. The mean temperature on the unexposed face must not increase by more than 140°C above ambient, nor must it increase by more than 180°C above ambient at one point. A fire resistant glass must fulfil at least the integrity criterion. Pyrobel glasses fulfil both integrity and insulation criteria for durations of 30, 60, 90 or 120 minutes. Please refer to the respective Pyrobel data sheets for more details.

STORAGE

Pyrobel must be stored in dry and ventilated conditions, at temperatures between -20°C and 40°C, not exposed to solar radiation or UV light. In cases, Pyrobel must always be transported and stored in upright position. On racks, Pyrobel must be stored slightly inclined (6 to 10° from the vertical) and fully supported. A soft spacer must be placed between each glazing. Do not pile up more than 20 sheets per rack. Pyrobel is delivered in ready-to-install cut sizes, with and edge protection tape. Pyrobel can not be cut on site and the edge protection tape must not be removed nor damaged.

GLAZING INSTRUCTIONS

- Do not allow any contact of the glazing's edges with water.
- Do not install Pyrobel in locations where the glass temperature might exceed 40°C.
- Always refer to the fire test reports.
- Avoid all glass to metal contact.
- Do not exercise any restraint on the glazing.
- Do not damage the glazing's edges nor the protection tape.
- Keep the rebates dry and free from aggressive products (acids, organic solvents, etc.).
- Use hardwood setting blocs or equivalent (Shore hardness A 75).
- Provide an edge clearance of 4-5 mm.
- Provide front and back clearances of 4-5 mm, using closed cells foam tape.
- Provide a rebate depth of minimum 20 mm.
- Apply a neutral silicone sealant immediately after glazing.



EXTERNAL GLAZING

For external application, or in case of direct solar radiation on the glazing, Pyrobel is available as external grade, with a UV filter.

Pyrobel external grade must be correctly orientated, according to its label.

The glazing must be either fully bedded using neutral silicone or installed in drained and ventilated rebates and carefully sealed with a neutral siliconed capping.

Outside applications are only permitted if the temperature limit of 40°C is not likely to be exceeded.

For further advice on glazing details, please refer to the respective Pyrobel data sheets or to AGC Flat Glass Europe technical services.

PYROBELITE

For applications where fire resistant glasses with a rating of 30 minutes integrity only are required, AGC Flat Glass Europe has developed Pyrobelite, a new product thinner than Pyrobel but based on the same technology, that offers comparable advantages of clearness, safety, sound reduction and availability in small to large sizes from stock.

Pyrobelite is a laminated glass assembled with only one clear intumescent interlayer. Pyrobelite meets the integrity criterion of BS 476:Part 22:1987 for a duration of 30 minutes.

Contrary to the other monolithic fire resistant integrity glasses that remain clear when exposed to fire, Pyrobelite turns opaque as its interlayer expands. This characteristic reduces the heat transfer through the glazing and ensures a safe and panic-free evacuation of the building.

Last but not least, the protection offered by Pyrobelite after formal integrity failure is still very effective, as the glazing is not likely to collapse suddenly into small glass pieces.

Pyrobelite is available as 7 mm glazing for interior use and 11 mm glazing for outside use or high safety applications (class A according to BS 6206).

Please refer to the Pyrobelite data sheet for more details.

PYROBELITE 7

**FIRE RATING:
30 MINUTES INTEGRITY/LOW RADIATION GLASS**

DESCRIPTION

Pyrobelite is a laminated glass assembled with one clear intumescent interlayer.

In the event of fire, the interlayer expands at around 120 °C and transforms into a rigid and opaque fire shield, which enables the glazing to meet the integrity criterion of BS 476: Part 22: 1987 and to keep the heat radiation to a very low and safe level.

TECHNICAL DATA

SPECIFICATION & IDENTIFICATION	PYROBELITE 7 EW30 AGC	PYROBELITE 7EG EW30 AGC	PYROBELITE 7 or 7EG EW30 AGC
Glazing Type	Single	Single	Double Glazed
Grade	Internal	External	External
Nominal Thickness	7,9 mm	11,3 mm	a) 6/12/Pyrobelite 7EG = 29,3 mm b) 6.8/12/Pyrobelite 7 = 26,7 mm
Thickness Tolerance	± 0,9 mm	± 1 mm	± 2 mm
Weight	17 kg/m ²	25 kg/m ²	a) 40 kg/m ² b) 33 kg/m ²
Dimension Tolerance	± 2 mm	± 2 mm	± 3 mm
Light Transmission (EN410)	89 %	87 %	78 %
U _g Value (EN673)	5.7 W/(m ² .K)	5.5 W/(m ² .K)	2.8 W/(m ² .K)
Safety Rating (BS 6206) (EN 12600)	Class C 3B3	Class A 1B1	Class A (*) a) NPД / 1B1 b) 1B1 / 3B3
Sound Reduction R _w index (EN12758)	34 dB	35 dB	37 dB (estimated)

(*) On Pyrobelite 7EG or 6.8 laminated glass side
NPД = No Performance Determined

APPLICATIONS AND CERTIFICATION ACCORDING TO BS 476:PART 22:1987

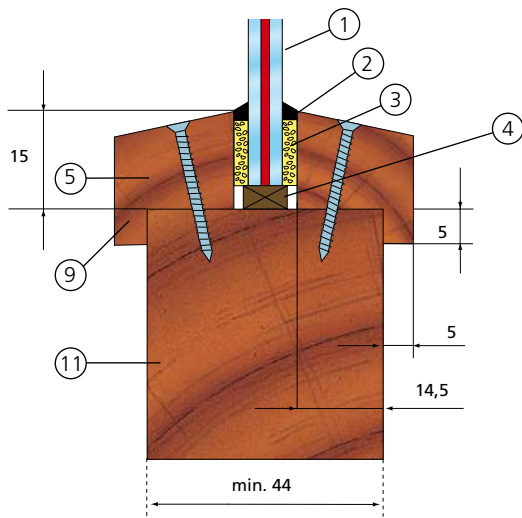
APPLICATIONS	MAXIMUM DIMENSIONS (*) (Width x Height)	GLASS TYPE	CERTIFICATION
Timber Doorsets (Certifire & Q-Mark approved)	890 x 2300 mm	Pyrobelite 7 & 7EG	Certifire CF377
	710 x 1830 mm	Pyrobelite 7	Chiltern Chilt/A05178
Timber Screens	1360 x 2270 mm 840 x 2900 mm 1758 x 1758 mm	Pyrobelite 7 & 7EG	Certifire CF377
	1400 x 2300 mm 1794 x 1794 mm	Pyrobelite 7 & 7EG Double Glazed	Certifire CF377
Steel Doorsets - RP Technik Hermetic 40	826 x 2086 mm 875 x 1968 mm	Pyrobelite 7 & 7EG Double Glazed	Certifire CF377
Steel Screens	1200 x 2300 mm 1661 x 1661 mm	Pyrobelite 7 & 7EG	Certifire CF377
Steel Screens - Jansen Economy 50	1170 x 2170 mm	Pyrobelite 7	BRE CC89390
Steel Screens - Forster Presto	669 x 1911 mm	Pyrobelite 7	IFC IFCA/97043A
Aluminium Screens - Schüco BF60	1200 x 2300 mm	Pyrobelite 7, 7EG & Double Glazed	IFC IFCA/02110A

(*) For alternative dimensions within pane area please consult AGC Flat Glass Europe

PYROBELITE 7

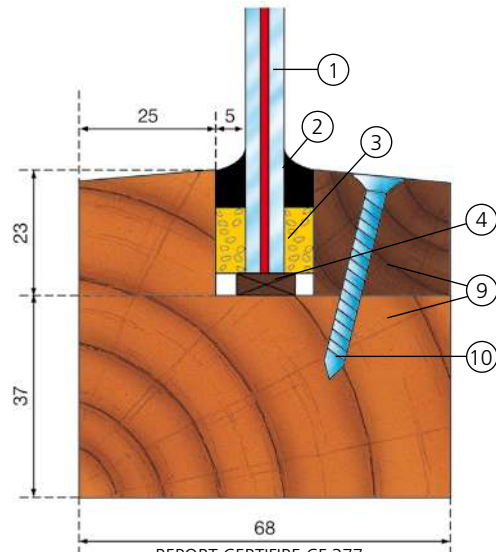
(dimensions in mm)

Timber Doorset



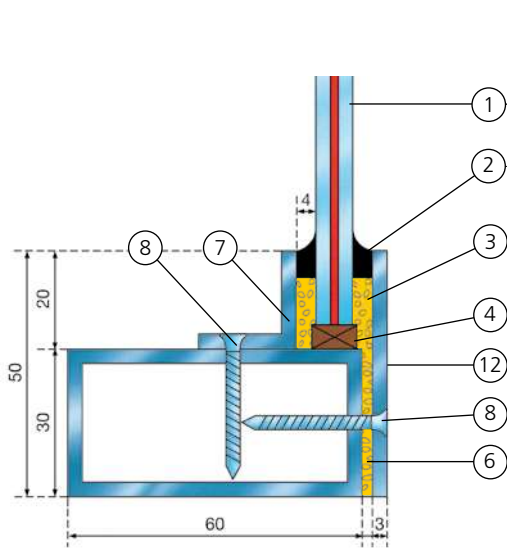
REPORT CHILT/A05178

Timber Screen



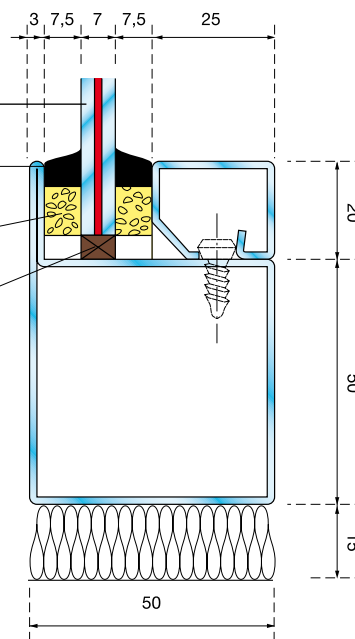
REPORT CERTIFIRE CF 377

Steel Screen



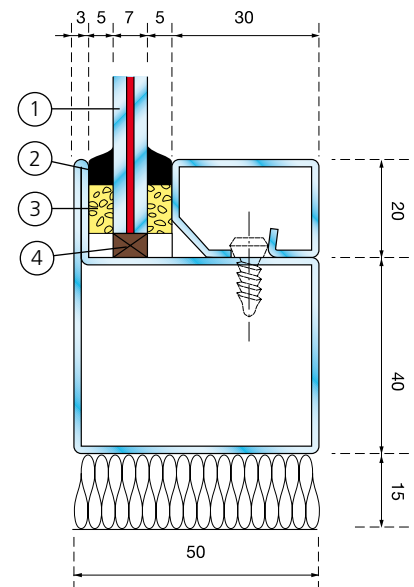
REPORT CERTIFIRE CF377

Steel Screen Jansen Economy 50



REPORT BRE CC89390

Steel Screen Forster Presto



REPORT IFC IFCA/97043A

- | | |
|----------------------------------|--|
| 1 Pyrobelite 7 | 7 Steel angle 20 x 20 x 3 mm |
| 2 Neutral silicone | 8 Steel screws 30 x 3 mm at 250 mm centres |
| 3 Ceramic fibre paper 5 mm thick | 9 Hardwood |
| 4 Setting block 4 mm thick | 10 Steel screw 38 x 4 mm at 270 mm centres |
| 5 Steel screw 50 mm long | 11 Wood or other approved constructions |
| 6 Steel tube 60 x 30 x 3 mm | 12 Steel plate 50 x 3 mm |

Diagrams for illustration purposes only. For full glazing details please refer to the relevant test report.

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GLASS UNLIMITED

Overseas markets : AGC Flat Glass Europe - Seneffe plant - Tel. : +32(0)64 51 05 19 - Fax : +32(0)64 55 80 80 - pyrobel@eu.agc-flatglass.com
 United Kingdom & Ireland : AGC Flat Glass United Kingdom - Tel. : +44(0)1788 535353 - Fax : +44(0)1788 560853 - sales.uk@eu.agc-flatglass.com

PYROBELITE 12
FIRE RATING:
60 MINUTES INTEGRITY/LOW RADIATION GLASS

DESCRIPTION

Pyrobelite is a laminated glass assembled with clear intumescent interlayers. In the event of fire, the interlayer expands at around 120° C and transforms into a rigid and opaque fire shield, which enables the glazing to meet the integrity criterion of BS 476: Part 22: 1987 and to keep the heat radiation to a very low and safe level.

TECHNICAL DATA

SPECIFICATION & IDENTIFICATION	PYROBELITE 12 EW60 AGC
Glazing Type	Single
Grade	Internal
Nominal Thickness	12,3 mm
Thickness Tolerance	± 1 mm
Weight	27 kg/m ²
Dimension Tolerance	± 2 mm
Light Transmission (EN410)	86 %
U _g Value (EN673)	5.6 W/(m ² .K)
Safety Rating (BS 6206) (EN12600)	Class B 2B2
Sound Reduction - Rw Index (EN12758)	36 dB

APPLICATIONS AND CERTIFICATION ACCORDING TO BS 476:PART 22:1987

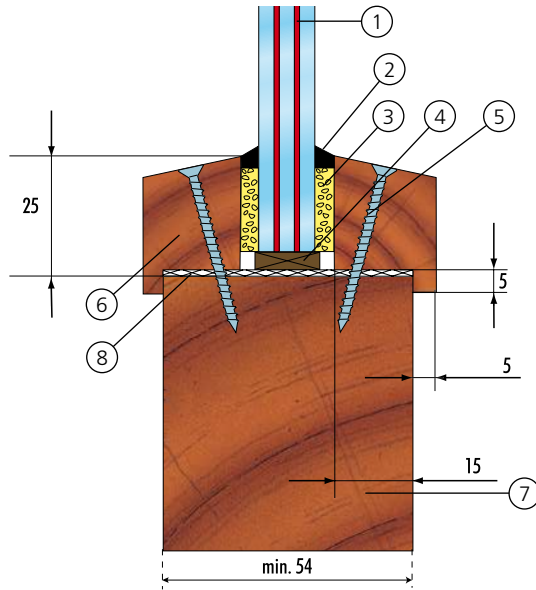
APPLICATIONS	MAXIMUM DIMENSIONS (*)	GLASS TYPE (Width x Height)	CERTIFICATION
Timber Doorsets (Certifire & Q-Mark approved)	710 x 1830 mm	Pyrobelite 12	Certifire CF377 Chiltern Chilt/A05178
Timber Screens	914 x 2400 mm 1480 x 1480 mm	Pyrobelite 12	Certifire CF377
Steel Screens	695 x 2040 mm 1424 x 692 mm 1538 x 641 mm	Pyrobelite 12	Certifire CF377

(*) For alternative dimensions within pane area please consult AGC Flat Glass Europe

PYROBELITE 12

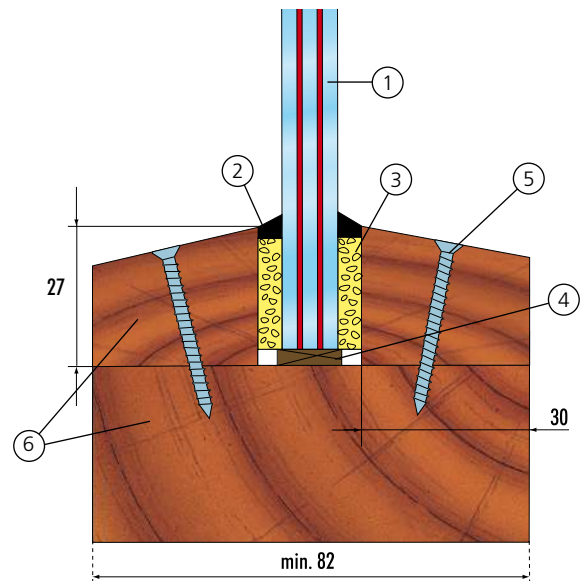
(dimensions in mm)

Timber Doorset



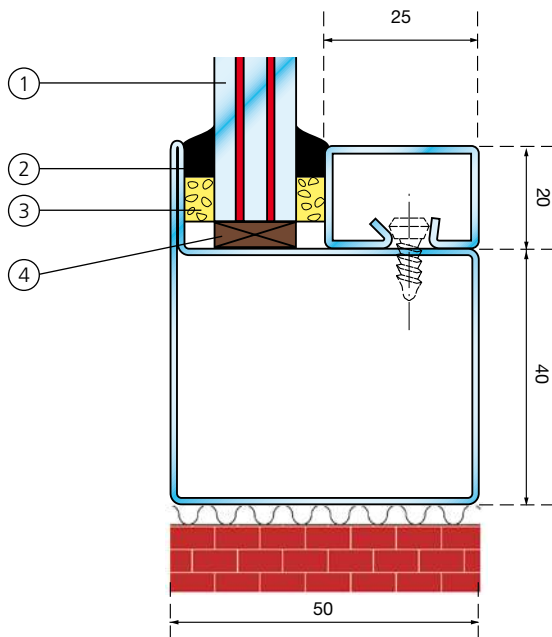
REPORT CHILTERN CHILT/A05178

Timber Screen



REPORT CERTIFIRE CF377

Steel Screen - Jansen Economy 50



Report Certifire CF377

- | | |
|----------------------------------|--|
| 1 Pyrobelite 12 | 5 Steel screws 60 mm long |
| 2 Neutral silicone | 6 Hardwood |
| 3 Ceramic fibre paper 5 mm thick | 7 Wood or other approved constructions |
| 4 Setting block 4 mm thick | 8 Therm-A-Strip 2 mm thick |

Diagrams for illustration purposes only. For full glazing details please refer to the relevant test report.

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PYROBEL 16

**FIRE RATING:
60 MINUTES INTEGRITY/30 MINUTES INSULATION**

DESCRIPTION

Pyrobel is a multi-laminated glass assembled with clear intumescent interlayers.

In the event of fire, these interlayers expand at around 120 °C and transform into a rigid and opaque fire shield, which enables the glazing to meet the integrity and insulation criteria, according to BS 476: Part 22: 1987.

TECHNICAL DATA

SPECIFICATION & IDENTIFICATION	PYROBEL 16 E60 / EI30 AGC Single	PYROBEL 16EG E60 / EI30 AGC Single	PYROBEL 16 or 16EG E60 / EI30 AGC Double Glazed
Glazing Type	Internal	External	External
Grade	Internal	External	External
Nominal Thickness	17,3 mm	21,1 mm	a) 6/12/Pyrobel 16EG = 39,1 mm b) 6.8/12/Pyrobel 16 = 36,1 mm
Thickness Tolerance	± 1 mm	± 1,5 mm	± 3 mm
Weight	40 kg/m ²	48 kg/m ²	a) 63 kg/m ² b) 56 kg/m ²
Dimension Tolerance	± 2 mm	± 2 mm	± 3 mm
Light Transmission (EN410)	84 %	83 %	74 %
U _g Value (EN673)	5.4 W/(m ² .K)	5.2 W/(m ² .K)	2.7 W/(m ² .K)
Safety Rating (BS 6206) (EN12600)	Class B 2B2	Class A 1B1	Class A (*) a) NPD / 1B1 b) 1B1 / 2B2
Sound Reduction R _w Index (EN12758) (*) on Pyrobel 16 EG or 6.8 laminated glass side NPD = No Performance Determined	39 dB	39 dB	41 dB (estimated)

APPLICATIONS AND CERTIFICATION ACCORDING TO BS 476:PART 22:1987

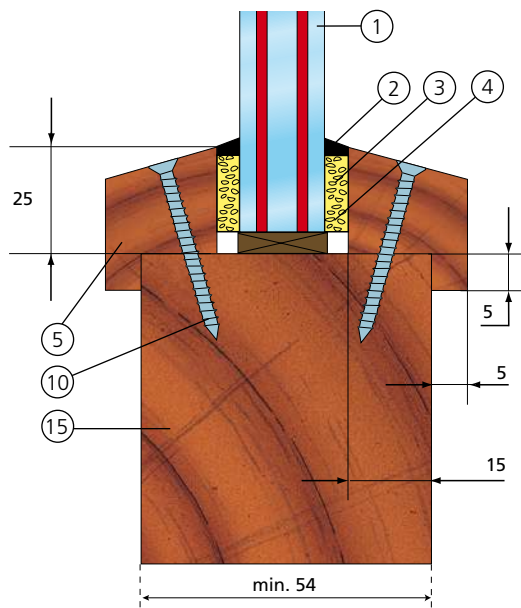
APPLICATIONS	MAXIMUM DIMENSIONS (*) (Width x Height)	GLASS TYPE	CERTIFICATION
Timber Doorsets (Certifire & Q-Mark approved)	710 x 1830 mm	Pyrobel 16 & 16EG	Certifire CF377 Chiltern Chilt/A05178
Timber Screens	1400 x 2700 mm 1944 x 1944 mm	Pyrobel 16 & 16EG	Certifire CF377
	1400 x 2700 mm	Pyrobel 16 Double Glazed	BRE CC201156
	For EI30 applications only 1600 x 2900 mm 1920 x 1900 mm	Pyrobel 16 & 16EG	Certifire CF377
Steel Screens	1400 x 2700 mm	Pyrobel 16	Warrington WFRC C102254
	900 x 2900 mm 2060 x 500 mm	Pyrobel 16	Certifire CF377
	For EI30 applications only 1600 x 2900 mm 1920 x 1900 mm	Pyrobel 16 & 16EG	Certifire CF377
Aluminium Screens - Schüco BF50+ and BF60+	For EI30 applications only 1252 x 2860 mm 2860 x 1400 mm	Pyrobel 16 & 16EG Double Glazed	Certifire CF377

(*) For alternative dimensions within pane area please consult AGC Flat Glass Europe

PYROBEL 16

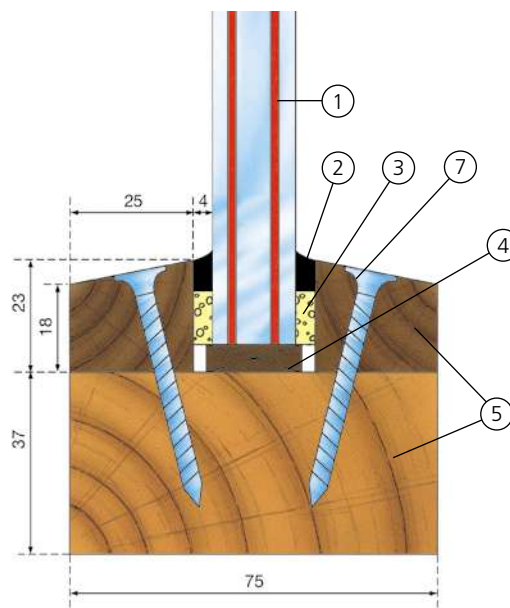
(dimensions in mm)

Timber Doorset



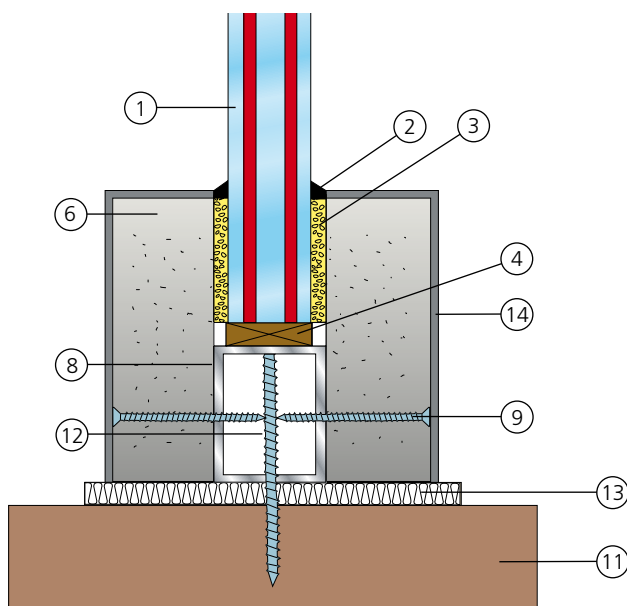
REPORT CHILTERN CHILT/A05178

Timber Screen



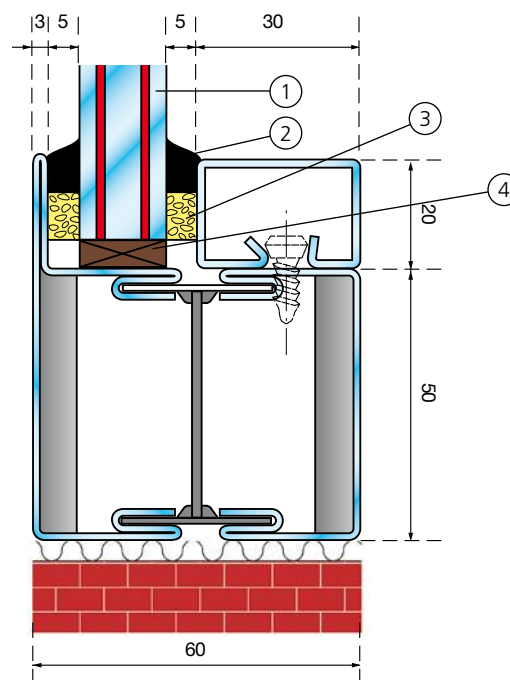
REPORT CERTIFIRE CF377

Steel Screen



REPORT WARRINGTON WFRC C102254

Steel Screen - Jansen Janisol 2



REPORT CERTIFIRE CF377

- | | |
|--|---|
| 1 Pyrobel 16 | 9 MT screws 35 x 5 mm |
| 2 Silicone Sealant | 10 Steel screws 60 x 4 mm |
| 3 Foam tape with closed cells | 11 Supporting Construction |
| 4 Setting block | 12 Wood screw 50 x 5 mm + Plug |
| 5 Hardwood | 13 Rock Wool |
| 6 Calcium Silicate 49 x 20mm | 14 Aesthetic Metal Cladding |
| 7 Steel screws 50 x 4 mm at 250 mm centres | 15 Wood or other approved constructions |
| 8 Steel tube 25 x 25 x 3mm | |

Diagrams for illustration purposes only. For full glazing details please refer to the relevant test report.

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Good Morning July 2007 / EN: ref.: 1129020

PYROBEL 25

**FIRE RATING:
60 MINUTES INTEGRITY/60 MINUTES INSULATION**

DESCRIPTION

Pyrobel is a multi-laminated glass assembled with clear intumescent interlayers. In the event of fire, these interlayers expand at around 120°C and transform into a rigid and opaque fire shield, which enables the glazing to meet the integrity and insulation criteria, according to BS 476: Part 22: 1987.

TECHNICAL DATA

SPECIFICATION & IDENTIFICATION	PYROBEL 25 E160 AGC	PYROBEL 25EG E160 AGC	PYROBEL 25 or 25EG E160 AGC
Glazing Type	Single	Single	Double Glazed
Grade	Internal	External	External
Nominal Thickness	26,6 mm	30,4 mm	a) 6/12/Pyrobel 25EG = 48,4 mm b) 6.8/12/Pyrobel 25 = 45,4 mm
Thickness Tolerance	± 2 mm	± 2 mm	± 3 mm
Weight	60 kg/m ²	68 kg/m ²	a) 83 kg/m ² a) 76 kg/m ²
Dimension Tolerance	± 2 mm	± 2 mm	± 3 mm
Light Transmission (EN410)	81 %	80 %	71 %
U _g Value (EN673)	5.2 W/(m ² .K)	5.0 W/(m ² .K)	2.6 W/(m ² .K)
Safety Rating (BS 6206) (EN12600)	Class A 1B1	Class A 1B1	Class A (*) a) NPD / 1B1 b) 1B1 / 1B1
Sound Reduction R _w Index (EN12758)	40 dB	43 dB	44 dB (estimated)
(*) on Pyrobel or 6.8 laminated glass side NPD = No Performance Determined			

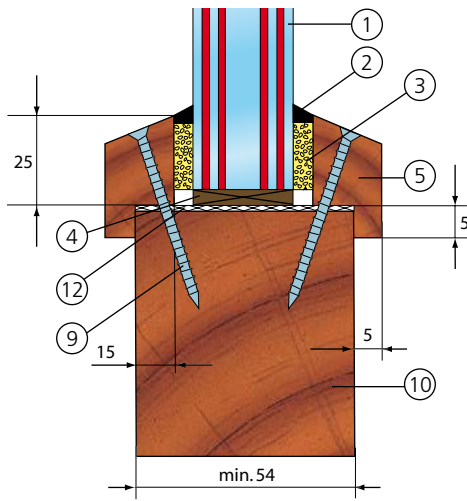
APPLICATIONS AND CERTIFICATION ACCORDING TO BS 476:PART 22:1987

APPLICATIONS	MAXIMUM DIMENSIONS (*) (Width x Height)	GLASS TYPE	CERTIFICATION
Timber Doorsets (Certifire & Q-Mark approved)	710 x 1830 mm	Pyrobel 25	Certifire CF377 Chiltern Chilt/A05178
Timber Screens	1658 x 2874 mm 2283 x 2000 mm	Pyrobel 25, 25EG & Double Glazed	Certifire CF377
Steel Doorsets - RP Technik Isofeu 60	988 x 2900 mm 1282 x 2300 mm	Pyrobel 25 & 25EG	Certifire CF377
	898 x 2875 mm 1122 x 2300 mm	Pyrobel 25 & 25EG Double Glazed	Certifire CF377
Steel Screens	1300 x 2300 mm 2300 x 1300 mm	Pyrobel 25 & 25EG	Certifire CF377
Steel Screens - Jansen Janisol 3	1600 x 2900 mm	Pyrobel 25 & 25EG	Certifire CF377
Steel Screens - Jansen VISS	1395 x 2900 mm 1562 x 2590 mm	Pyrobel 25 & 25EG Double Glazed	Certifire CF377
(*) For alternative dimensions within pane area please consult AGC Flat Glass Europe			

PYROBEL 25

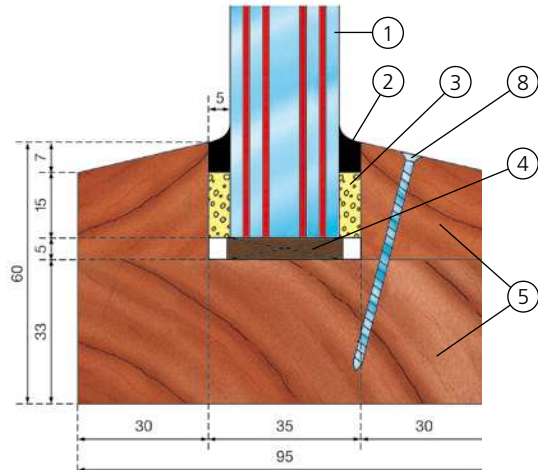
(dimensions in mm)

Timber Doorset



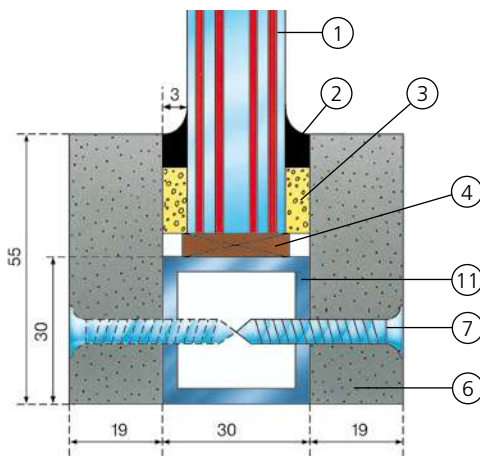
REPORT CHILTERN CHILT/A05178

Timber Screen



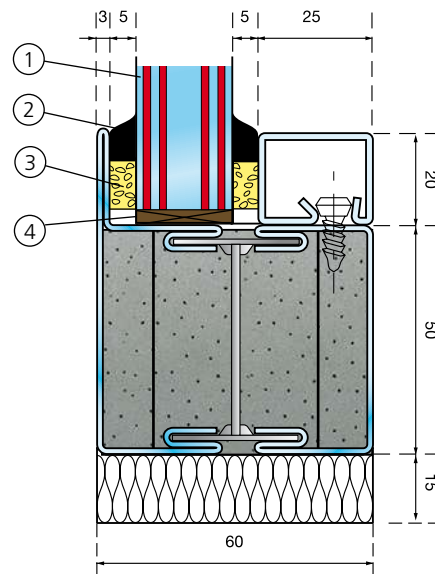
REPORT CERTIFIRE CF377

Steel Screen



REPORT CERTIFIRE CF377

Steel Screen - Jansen Janisol 3



REPORT CERTIFIRE CF377

- | | |
|-------------------------------|--|
| 1 Pyrobel 25 | 7 Steel screws 35 x 4 mm at 250 mm centres |
| 2 Neutral silicone | 8 Steel screws 50 x 4 mm at 250 mm centres |
| 3 Foam tape with closed cells | 9 Steel screws 60 x 4 mm |
| 4 Setting block | 10 Wood or other approved constructions |
| 5 Hardwood | 11 Steel tube 30 x 30 x 3 mm |
| 6 Calcium Silicate | 12 Therm-A-Strip 2 mm thick |

Diagrams for illustration purposes only. For full glazing details please refer to the relevant test report.

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GLASS UNLIMITED

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Good Morning July 2007 / EN: ref : 1129020

PYROBEL 35
FIRE RATING:
90 MINUTES INTEGRITY/90 MINUTES INSULATION

DESCRIPTION

Pyrobel is a multi-laminated glass assembled with clear intumescent interlayers. In the event of fire, these interlayers expand at around 120 °C and transform into a rigid and opaque fire shield, which enables the glazing to meet the integrity and insulation criteria, according to BS 476: Part 22: 1987.

TECHNICAL DATA

SPECIFICATION & IDENTIFICATION	PYROBEL 35 E190 AGC	PYROBEL 35EG E190 AGC	PYROBEL 35 or 35EG E190 AGC
Glazing Type	Single	Single	Double Glazed
Grade	Internal	External	External
Nominal Thickness	34,7 mm	38,5 mm	8.8/12/Pyrobel 35 = 55,5 mm
Thickness Tolerance	± 2 mm	± 2 mm	± 3 mm
Weight	81 kg/m ²	89 kg/m ²	102 kg/m ²
Dimension Tolerance	± 2 mm	± 2 mm	± 3 mm
Light Transmission (EN410)	79 %	77 %	69 %
U _g Value (EN673)	4.9 W/(m ² .K)	4.8 W/(m ² .K)	2.6 W/(m ² .K)
Safety Rating (BS 6206) (EN12600)	Class A 1B1	Class A 1B1	Class A (*) 1B1 / 1B1
Sound Reduction R _w Index (EN12758)	41 dB	42 dB	43 dB (estimated)

(*) On Pyrobel or 8.8 Laminated Glass Side

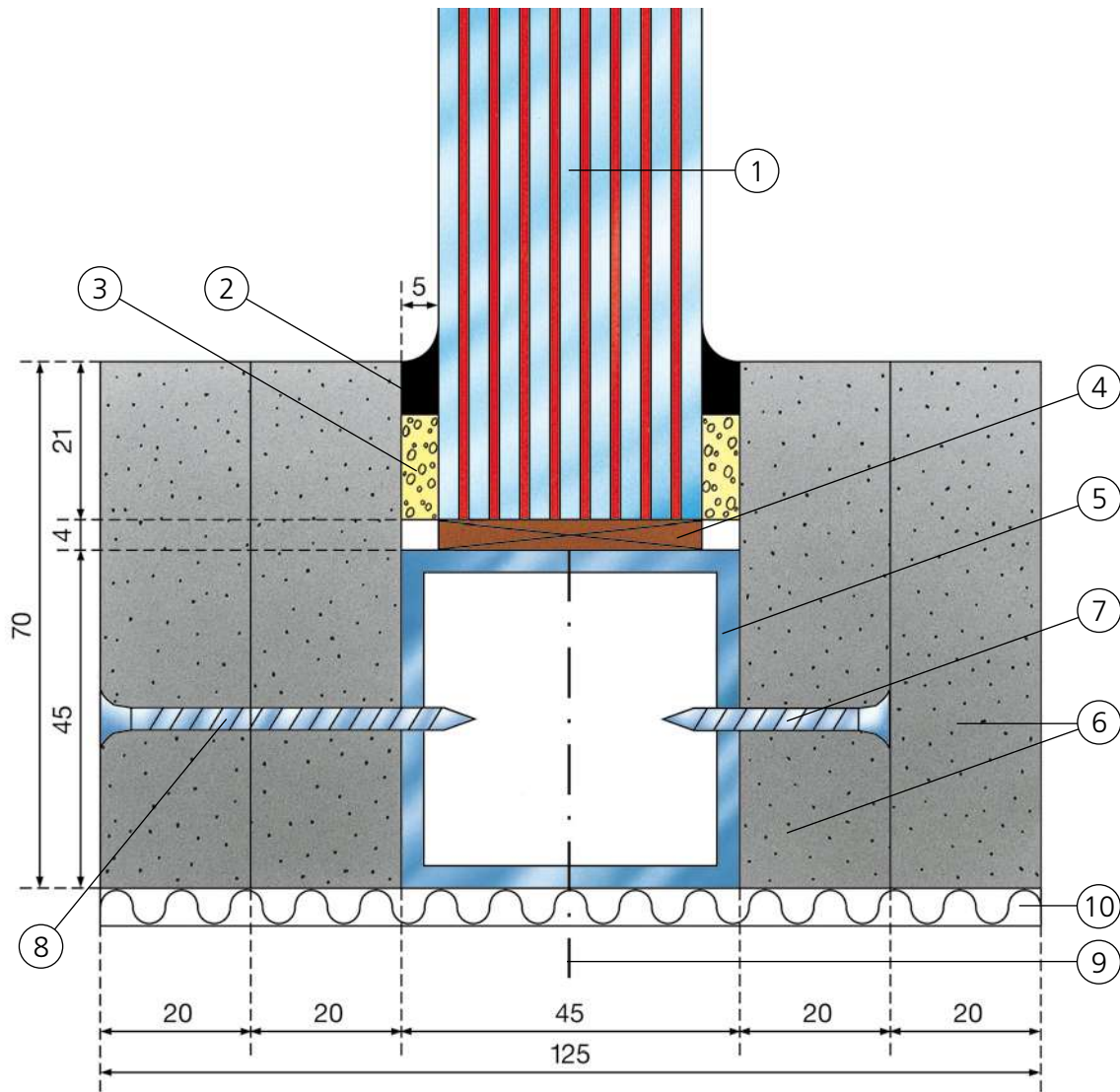
APPLICATIONS AND CERTIFICATION ACCORDING TO BS 476:PART 22:1987

APPLICATIONS	MAXIMUM DIMENSIONS (*) (Width x Height)	GLASS TYPE	CERTIFICATION
Steel Screens	1400 x 2700 mm 1750 x 1750 mm	Pyrobel 35 & 35EG	Certifire CF 377
	1200 x 2200 mm	Pyrobel 35 Double Glazed	BRE CC84731A
Steel Screens - Forster Fuego	1200 x 2200 mm	Pyrobel 35 & Pyrobel 35EG Double Glazed	BRE CC84731B

(*) For alternative dimensions within pane area please consult AGC Flat Glass Europe.

PYROBEL 35

(dimensions in mm)



REPORT CERTIFIRE CF377

- | | |
|-------------------------------|--|
| 1 Pyrobel 35 | 7 Steel screw 30 x 3 mm at 500 mm centres |
| 2 Neutral silicone | 8 Steel screw 50 x 3 mm at 500 mm centres
midway between the 30 mm screws |
| 3 Foam tape with closed cells | 9 Steel screw 112 x 10 mm at 500 mm centres |
| 4 Setting block | 10 Ceramic or mineral wool |
| 5 Steel tube 45 x 45 x 3 mm | |
| 6 Calcium silicate | |

Good Morning July 2007/EN:ref.: 1129020

Diagrams for illustration purposes only. For full glazing details please refer to the relevant test report.

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GLASS UNLIMITED

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 United Kingdom & Ireland : AGC Flat Glass United Kingdom - Tel. : +44(0)1788 535353 - Fax : +44(0)1788 560853 - sales.uk@eu.agc-flatglass.com

PYROBEL 53
FIRE RATING:
120 MINUTES INTEGRITY/120 MINUTES INSULATION

DESCRIPTION

Pyrobel is a multi-laminated glass assembled with clear intumescent interlayers. In the event of fire, these interlayers expand at around 120 °C and transform into a rigid and opaque fire shield, which enables the glazing to meet the integrity and insulation criteria, according to BS 476: Part 22: 1987.

TECHNICAL DATA

SPECIFICATION & IDENTIFICATION	PYROBEL 53 EI120 AGC	PYROBEL 53EG EI120 AGC
Glazing Type	Single	Single
Grade	Internal	External
Nominal Thickness	52,5 mm	56,2 mm
Thickness Tolerance	± 3 mm	± 3 mm
Weight	122 kg/m ²	130 kg/m ²
Dimension Tolerance	± 3 mm	± 3 mm
Light Transmission (EN410)	72 %	71 %
U _g Value (EN673)	4.5 W/(m ² .K)	4.3 W/(m ² .K)
Safety Rating (BS 6206) (EN12600)	Class A 1B1	Class A 1B1
Sound Reduction Rw Index (EN12758)	45 dB	46 dB

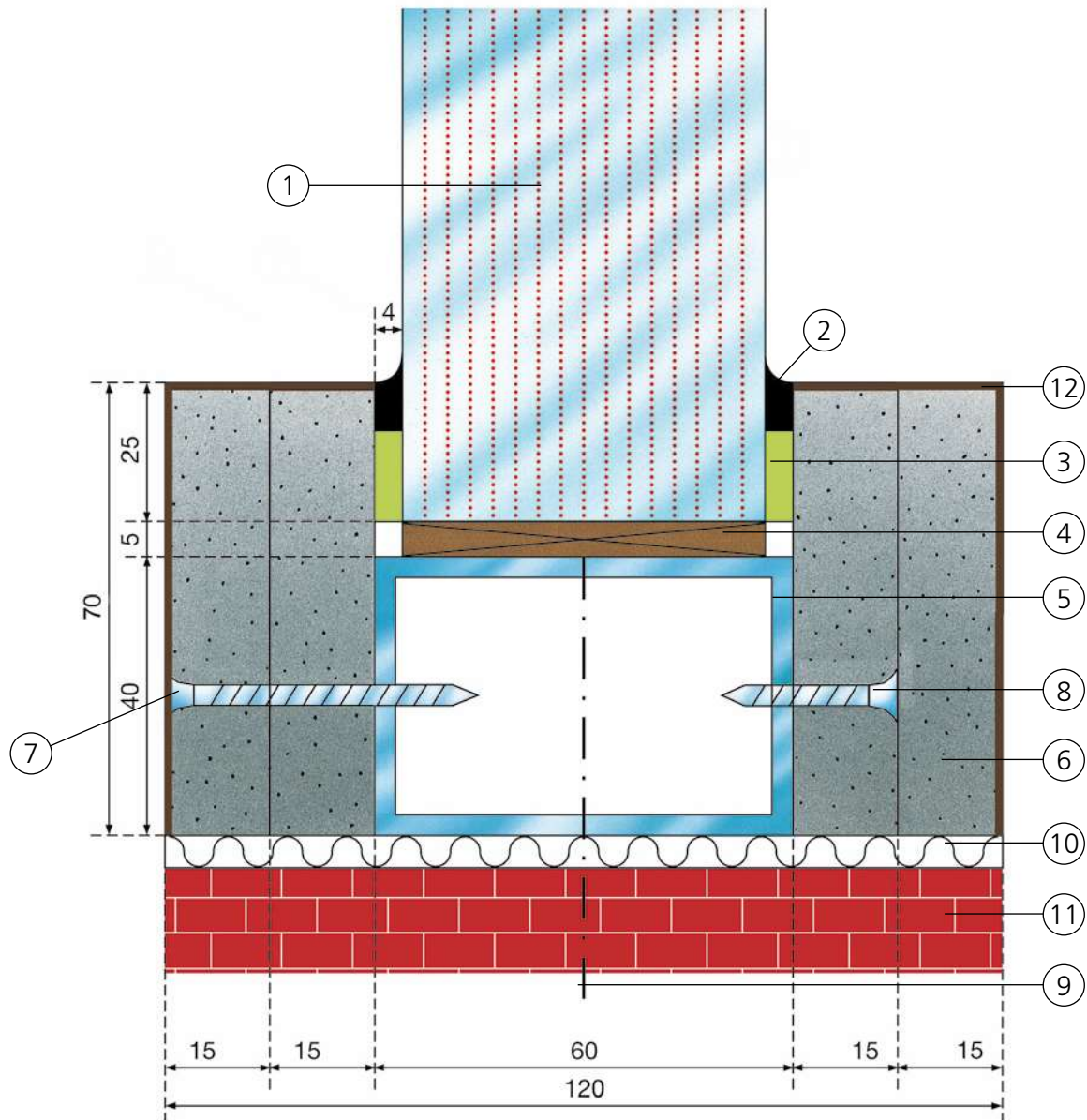
APPLICATIONS AND CERTIFICATION ACCORDING TO BS 476:PART 22:1987

APPLICATIONS	MAXIMUM DIMENSIONS (*) (Width x Height)	GLASS TYPE	CERTIFICATION
Steel Screens	1300 x 2700 mm 2100 x 1100 mm	Pyrobel 53 & 53EG	Certifire CF377

(*) For alternative dimensions within pane area please consult AGC Flat Glass Europe

PYROBEL 53

(dimensions in mm)



REPORT CERTIFIRE CF377

- | | |
|-------------------------------|----------------------------|
| 1 Pyrobel 53 | 7 Steel screws 50 x 3,5 mm |
| 2 Neutral silicone | 8 Steel screws 40 x 3,5 mm |
| 3 Foam tape with closed cells | 9 Steel screws 112 x 10 mm |
| 4 Setting block | 10 Ceramic wool |
| 5 Steel tube 60 x 40 x 3 mm | 11 Wall |
| 6 Calcium silicate | 12 Aluminium profile |

Good Morning July 2007/EN:ref.: 1129020

Diagrams for illustration purposes only. For full glazing details please refer to the relevant test report.

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PYROBEL Horizontal Glazing

FIRE RATING:

PYROBEL 19:

30 MINUTES INTEGRITY/30 MINUTES INSULATION

PYROBEL 28:

60 MINUTES INTEGRITY/60 MINUTES INSULATION

DESCRIPTION

Pyrobel is a multi-laminated glass assembled with clear intumescent interlayers.

In the event of fire, these interlayers expand at around 120 °C and transform into a rigid and opaque fire shield, which enables the glazing to meet the integrity and insulation criteria, according to BS 476: Part 22: 1987.

TECHNICAL DATA

SPECIFICATION & IDENTIFICATION	PYROBEL 19 EI30 AGC	PYROBEL 28 EI60 AGC
Glazing Type	Single	Single
Nominal Thickness	19,1 mm	28,4 mm
Thickness Tolerance	± 1,5 mm	± 2 mm
Weight	43 kg/m ²	63 kg/m ²
Dimension Tolerance	± 2 mm	± 2 mm
Light Transmission (EN410)	81 %	78 %
U _g Value (EN673)	5.2 W/(m ² .K)	4.9 W/(m ² .K)
Safety Rating (BS 6206) (EN12600)	Class A 1B1	Class A 1B1
Sound Reduction R _w Index (EN12758)	38 dB	41 dB

APPLICATIONS AND CERTIFICATION ACCORDING TO BS 476:PART 22:1987

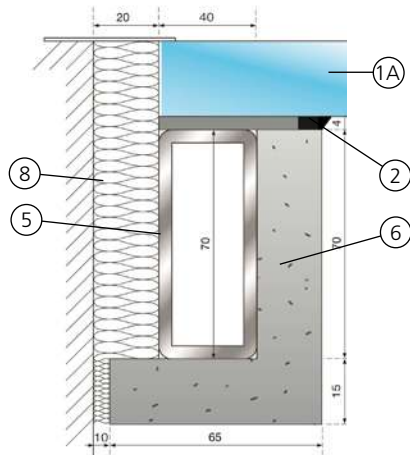
APPLICATIONS	MAXIMUM DIMENSIONS (*) (Width x Height)	GLASS TYPE	CERTIFICATION
EI30 - Steel Screens	1100 x 2100 mm	Pyrobel 19	Certifire CF377
EI60 - Timber Screens	700 x 2060 mm	Pyrobel 28	BRE CC88595
EI60 - Steel Screens	1100 x 2100 mm	Pyrobel 28	Certifire CF377

(*) For alternative dimensions within pane area please consult AGC Flat Glass Europe

PYROBEL Horizontal Glazing

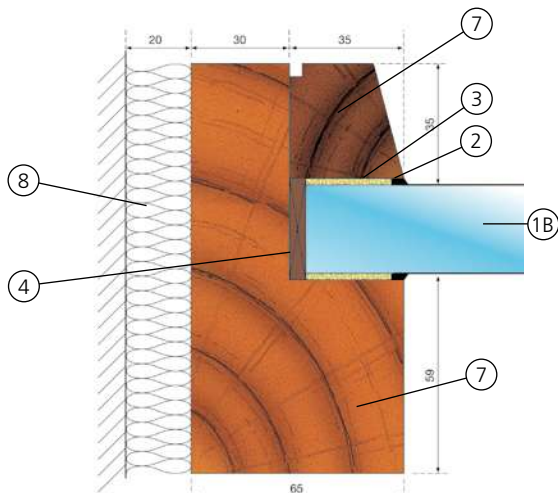
(dimensions in mm)

Steel Screen 30/30



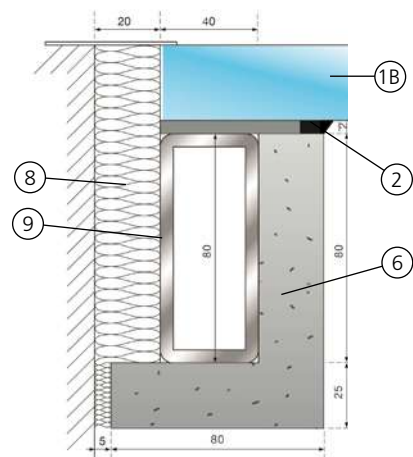
REPORT CERTIFIRE CF377

Timber Screen 60/60



REPORT BRE CC88595

Steel Screen 60/60



REPORT CERTIFIRE CF377

- 1A Pyrobel 19
- 1B Pyrobel 28
- 2 Neutral silicone
- 3 Foam tape with closed cells
- 4 Setting block

- 5 Steel tube 70 x 40 x 4 mm
- 6 Calcium silicate
- 7 Hardwood
- 8 Mineral wool
- 9 Steel Tube 80 x 40 x 5 mm

Good Morning July 2007/EN: ref : 1129020

Diagrams for illustration purposes only. For full glazing details please refer to the relevant test report.
These glasses are not suitable for walking purpose. Please consult AGC Flat Glass Europe for advice.

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