

RESISTANT GLASS



GLASS UNLIMITED

FIRE



GLASS UNLIMITED

www.yourglass.com

AGC Glass Europe has representatives worldwide. See www.yourglass.com for further addresses.



PYROPANE

**Toughened glazing that meet the Integrity criteria (E)
Toughened coated glazing that meet the Integrity
and Low Heat Radiation criteria (EW).
In the event of a fire, PYROPANE will resist the
thermal shock and will remain clear.**

- Single glazing rated E 30, EW 30 and DH 30 as smoke curtain and/or partitions.
- Double glazing rated EW 30, EW 45 and EW 60.
- Safety glass according to EN 12600 (class 1C1) that can be combined in DGU with laminated glass (class 1B1).
- Double glazing provides solar and thermal protection with high light transmission value.
- Approved in various framing systems.
- Humidity and UV resistant.

PYROBEL

**Laminated glazing assembled with clear
intumescent interlayers that meet the Integrity and
Low Radiation criteria (EW) or the Integrity and
Insulation criteria (EI).
In the event of a fire, the interlayers will expand
and transform themselves into a rigid, opaque and
heat absorbing fire shield.**

- Rated EW 30, EW 45 and EW 60; EI 15, EI 30, EI 45, EI 60, EI 90 and EI 120.
- Approved in wooden, steel and aluminium framing systems.
- Approved in frameless systems (butt-joint) named PYROBEL VISION LINE.
- Available as single internal glazing, single external glazing with an UV filter (EG type) and double glazing unit (DGU) in combination with any other AGC glass product.
- Safety glass according to EN 12600 (3B3, 2B2 or 1B1 acc. to product type).
- 2 sides fire resistance.
- Excellent sound reduction properties.
- Can be laminated with anti bandit and bullet resistant AGC glasses.
- Available in Clearvision® (extra clear glass).
- Short delivery time from a wide network of distributors.



COMPLIANCE

Fire resistance glasses are only part of complete fire resistant elements. It is the responsibility of the installer to ensure that the fire resistant element as a whole satisfies the regulations and / or to obtain the approval from the competent authorities. AGC Europe doesn't accept any liability should the fire resistant glass be installed in systems that do not comply with regulations.

A visible stamp should be placed on the glass in order to identify the product with its classification and position in the structure. For Pyropane, stamp must be readable from the fire side of the wall. Pyrobel is always 2 sides fire resistant glass. For a correct installation in case of UV radiation, stamp must be readable from the inside of the building.

STORAGE AND HANDLING INSTRUCTIONS

On racks, Fire Resistant Glasses 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.

Fire Resistant Glass must be stored in dry and ventilated conditions, at temperature between -40°C and +50°C, not exposed to solar radiation or UV light.



GLAZING INSTRUCTIONS

Fire Resistant Glass cannot be cut on site and the edge protection tape^(**) must not be removed nor damaged.

Before installation, Fire Resistant Glass must be checked to ensure that it is not damaged, especially along the edges.

The fire resistant properties can be altered if it has been scratched^(*), chipped or otherwise damaged. In such cases, it must not be installed.

The detailed user manuals and glazing recommendations can be found in the relevant information sheets.

Do not allow any contact of the glazing's edges with water.

Avoid all glass to metal contact.

Do not exercise any restraint on the glazing.

Do not install Fire Resistant Glass in locations where the glass temperature might exceed +50°C^(**).

Always refer to the fire test report details.

For external application, or in case of direct solar radiation on the glazing, Pyrobel is available as an external grade (EG), with a UV filter. Pyrobel External Grade must be correctly oriented with its stamp readable from the UV opposed side.

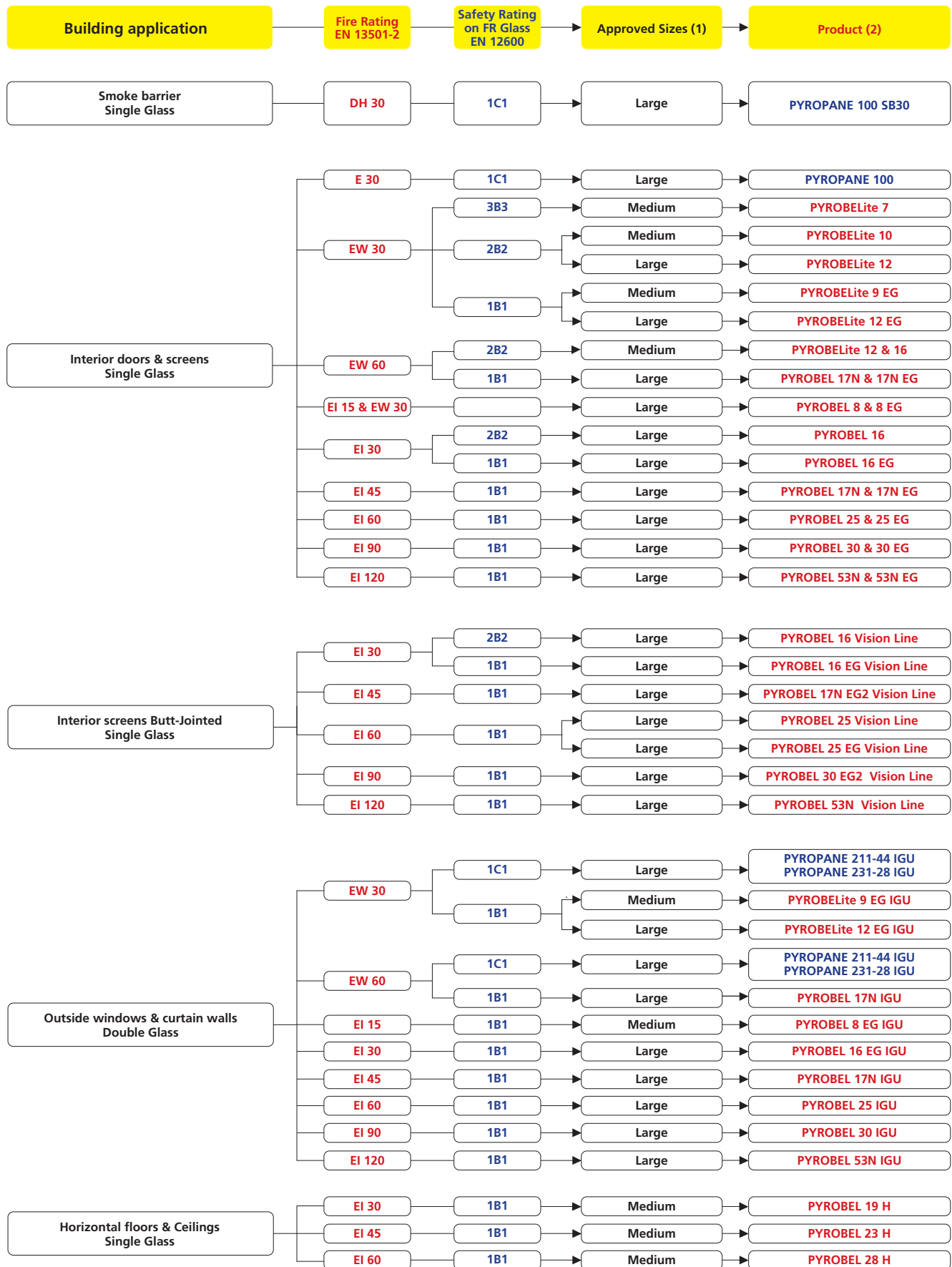
PYROBEL QUALITY DESCRIPTION

Fire Resistant Glass quality and performances are carefully controlled at each step of production. Due to the nature of its special intumescent interlayers, the intumescent interlayers^(**) 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%.

Defects of the coating on Fire Resistant Glass^(*) may influence negatively the performances.

(*) = Only for Pyropane; (**) = Only for Pyrobel

AGC FIRE RESISTANT GLASS PRODUCT SELECTOR:



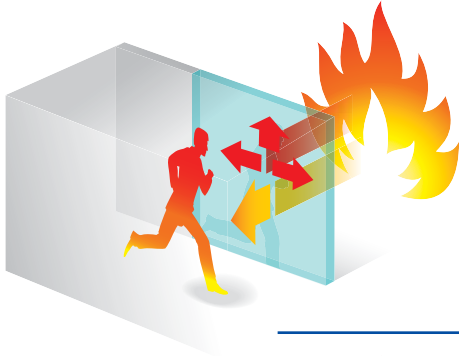
(1) For more information about the approved framing systems and sizes, please refer to the respective Product Data Sheets

(2) Pyrobel(ite) in IGU structure can be either 6 - air - Pyrobel(ite) EG or Laminated glass 33.2 - air - Pyrobel(ite), all combined with or without all type of AGC coatings

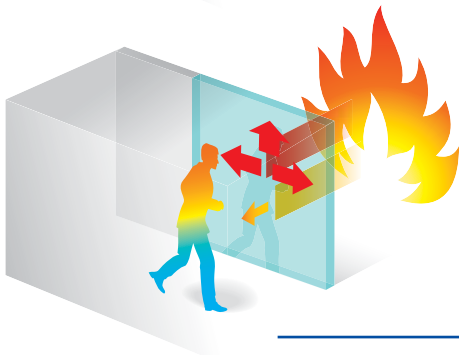
All Pyrobel(ite) EG structures can be combined with Stratobel approved Anti-Bandit (EN 356) or Anti-bullet (EN1063) glasses.

AGC Glass Europe offers a complete range of fire resistant glasses, tested and approved according to European and National Standards, that provides a unique combination of LIGHT, TRANSPARENCY and FIRE PROTECTION, for all building applications, framing types, fire resistance classes and durations :

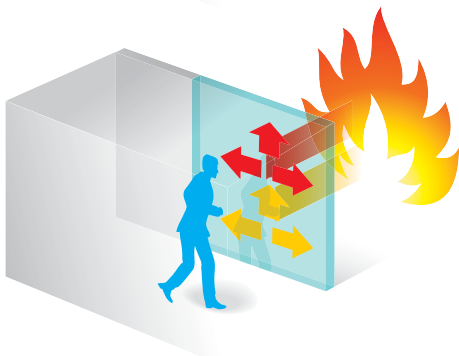
Class DH: smoke barrier that prevents the spread of smoke inside a building.



Class E: Integrity or the ability of the element not to collapse in order to prevent the passage of flames. Heat transfer is allowed.



Class EW: Integrity and Low Heat Radiation or the ability of the element to prevent the passage of flames and to limit the level of heat transfer through the element.



Class EI: Integrity and Insulation or the ability of the element to prevent the passage of flames and to block the heat transfer through the element.

The required fire protection rating is specified by the respective national building regulations following a risk assessment based on the building characteristics and the location of the fire rated element (façade, partitioning walls, stairways, etc.)

Fire protection ratings according to EN 12101-1 and EN 13501-2:

Class/Duration	15 min	20 min	30 min	45 min	60 min	90 min	120 min
DH	-	-	DH30	-	-	-	-
E	E15	E20	E30	E45	E60	E90	E120
EW	-	EW20	EW30	-	EW60	EW90	EW120
EI	EI15	EI20	EI30	EI45	EI60	EI90	EI120

AGC GLASS EUROPE FIRE RESISTANT GLASS PRODUCT RANGE:

 Tempered Glass
  Metallic coating
  Glass
  0.76 mm PVB film
  Intumescent interlayer
  Gas gap

PYROPANE 100



PYROPANE 211-44



PYROPANE 231-28



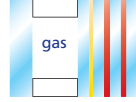
PYROBELite 7



PYROBELite 9 EG



PYROBELite 9 EG IGU



PYROBELite 7 IGU



PYROBELite 10



PYROBEL 8



PYROBEL 8 EG



PYROBEL 8 EG IGU



PYROBEL 8 IGU



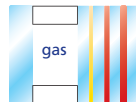
PYROBELite 12



PYROBELite 12 EG



PYROBELite 12 EG IGU



PYROBELite 12 IGU



PYROBEL 16



PYROBEL 16 EG



PYROBEL 16 EG IGU



PYROBEL 16 IGU



PYROBEL 16 VL



PYROBEL 16 +6 VL



PYROBEL 17N



PYROBEL 17N EG



PYROBEL 17N EG IGU



PYROBEL 17N IGU



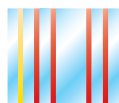
PYROBEL 17N EG2 VL



PYROBEL 25



PYROBEL 25 EG



PYROBEL 25 EG IGU



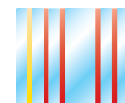
PYROBEL 25 IGU



PYROBEL 25 VL



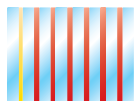
PYROBEL 25 EG VL



PYROBEL 30



PYROBEL 30 EG



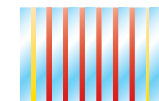
PYROBEL 30 EG IGU



PYROBEL 30 IGU



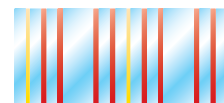
PYROBEL 30 EG2 VL



PYROBEL 53N



PYROBEL 53N EG



PYROBEL 53N VL



PYROBELITE 7




FIRE RESISTANT GLAZING EW 30
ACCORDING TO EN13501-2

DESCRIPTION

Pyrobelite 7 is a laminated glass assembled with one clear intumescent interlayer.

In the event of fire, the interlayer transforms into a rigid and opaque fire shield, that keeps out flames and reduces heat transmission. Pyrobelite 7 and 9 EG provide fire resistance in both directions.

TECHNICAL DATA

Specification / Identification	Pyrobelite 7  yourglass.com	Pyrobelite 9 EG  yourglass.com	Pyrobelite 7 / 9 EG  yourglass.com
Glazing type	Single	Single	Double glazed
Grade	Internal	Internal / External	Internal / External
Glass thickness	7.9 mm	12.06 mm	min 23.6 mm
Thickness tolerance	± 0.9 mm	± 1.5 mm	± 2 mm
Dimension tolerance	± 2 mm	± 2 mm	± 3 mm
Weight	ca 17 kg/m ²	ca 28 kg/m ²	min 32 kg/m ²
Minimum dimensions	No minimum	No minimum	200 x 400 mm
Light properties (EN 410): τ_v / ρ_v [%]	89/8	86/8	NPD
U value (EN 673)	5.7 W/(m ² .K)	5.5 W/(m ² .K)	NPD
Impact resistance (EN 12600)	3B3	1B1	NPD
Sound reduction (EN 12758): $R_w(C, C_{tr})$	34 dB (0; -3)	37 dB (-1; -2)	NPD

NPD: No performance declared - see Glass Configurator on www.yourglass.com

CERTIFICATIONS according to EN 1364-1, EN 1634-1 & EN 13501-2

APPLICATION (*)	REPORT NUMBER	Glazing	Tested dimensions in mm l x h (**)			Results (minutes)		
			Portrait	Landscape	Surface	EW	EI	
Partition	Timber	13409 B	Pyrobelite 7	1100 x 2874	1698 x 710	3.16 m ²	44	10
		14891 B	Pyrobelite 7 IGU	1000 x 2874	1783 x 850	2.87 m ²	42	13
		16015 A	Pyrobelite 9 EG	1100 x 2874	1683 x 850	3.16 m ²	44	25
	Steel – Jansen Economy 60	R06277	Pyrobelite 7	1205 x 2005	1421 x 777	2.42 m ²	37	8
	Steel - Forster Presto	16406	Pyrobelite 7	1000 x 2860	1215 x 800	2.86 m ²	37	9
	Steel -Stalprofil SP35000	3PO2372	Pyrobelite 7 IGU	900 x 2860	1875 x 800	2.57 m ²	34	-
	Alu - Schüco ADS 65NI FR30	14V001922	Pyrobelite 9 EG	1096 x 1710	2240 x 1130	2.53 m ²	37	-

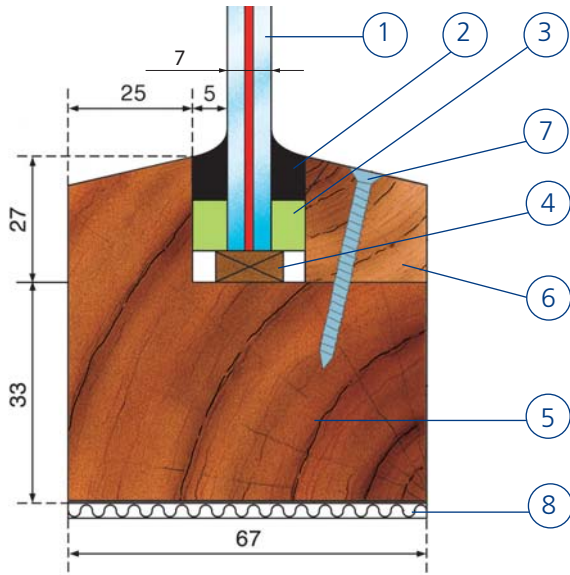
(*) For alternative systems, please consult AGC

(**) Extended application of results following EN 15254-4

PYROBELITE 7

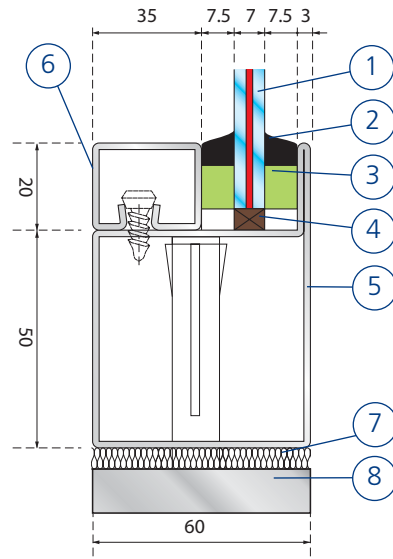
FIRE RESISTANT GLAZING EW 30 ACCORDING TO EN 13501-2

Timber frame (in mm)



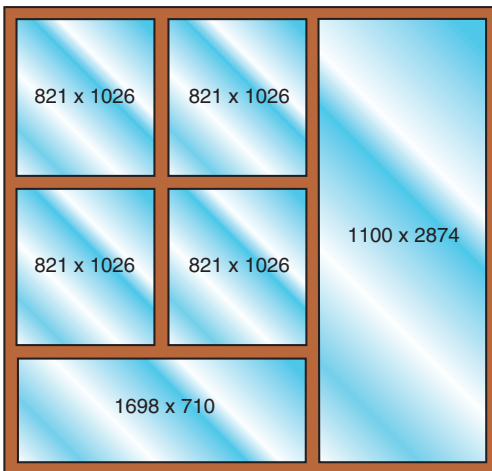
REPORT N° 13409 B

Steel frame (in mm)



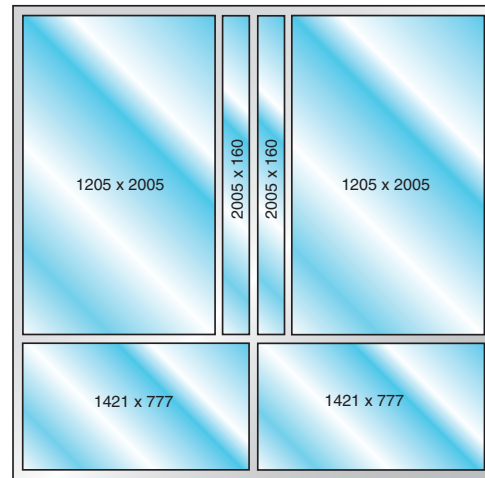
REPORT N° R06277

Example of assembly (in mm)
Unlimited partition



REPORT N° 13409 B

Example of assembly (in mm)
Unlimited partition



REPORT N° R06277

- 1 Pyrobelite 7
- 2 DC Firestop 700
- 3 Ceramic fibre paper: Superwool X607 15 x 5 mm
- 4 Setting block
- 5 Hardwood
- 6 Wooden Beads
- 7 Steel screw
- 8 Ceramic or mineral wool

- 1 Pyrobelite 7
- 2 Sealant DC 815
- 3 Ceramic fibre paper: Superwool X607 15 x 5 mm or Fiberfrax 15 x 4 mm
- 4 Setting block
- 5 Steel frame
- 6 Steel beads
- 7 Ceramic or mineral wool
- 8 Partition

All of the installation details given in the report must be respected. The only authorised modifications are those mentioned in the report.

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Fire Resistant Glass C+E E ENG - CDT s.r.o. - 3/2016

PYROBEL 8



FIRE RESISTANT GLAZING EI 15 AND EW 30
ACCORDING TO EN 13501-2

DESCRIPTION

Pyrobel 8 is a laminated glass assembled with one clear intumescent interlayer.

In the event of fire, the interlayer transforms into a rigid and opaque fire shield, that keeps out flames and reduces heat transmission with insulation of the partitions. Pyrobel 8 and 8 EG provide fire resistance in both directions.

TECHNICAL DATA

Specification / Identification	Pyrobel 8  yourglass.com	Pyrobel 8 EG  yourglass.com
Glazing type	Single	Single
Grade	Internal	Internal / External
Glass thickness	9.3 mm	13.1 mm
Thickness tolerance	± 1 mm	± 1.3 mm
Dimension tolerance	± 2 mm	± 2 mm
Weight	ca 20 kg/m ²	ca 28 kg/m ²
Minimum dimensions	No minimum	No minimum
Light properties (EN 410): τ_v / ρ_v [%]	88/8	86/8
U value (EN 673)	5.6 W/(m ² .K)	5.4 W/(m ² .K)
Impact resistance (EN 12600)	NPD	1B1
Sound reduction (EN 12758): $R_w(C, C_{tr})$	34 dB (-1; -3)	36 dB (-1; -3)

NPD: No performance declared - see Glass Configurator on www.yourglass.com

CERTIFICATIONS according to EN 1364-1, EN 1634-1 & EN 13501-2

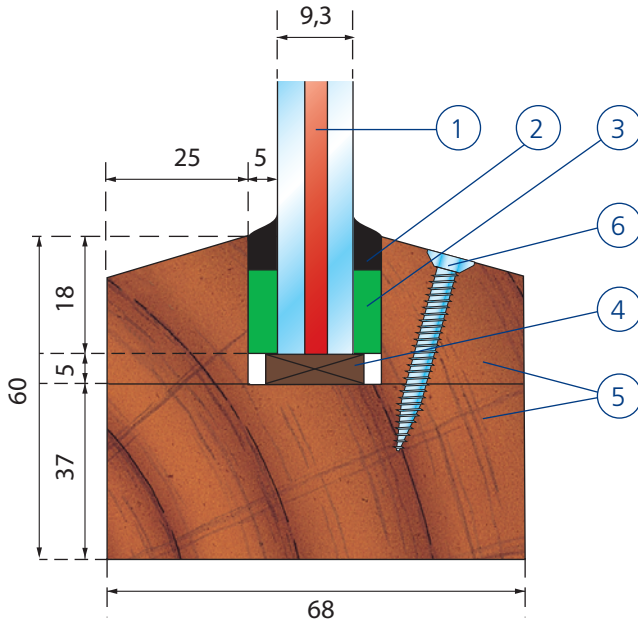
APPLICATION ^(*)	REPORT NUMBER	Glazing	Tested dimensions in mm l x h ^(**)			Results (minutes)	
			Portrait	Landscape	Surface	EW	EI
Partition	Pr-05-1.02.62	Pyrobel 8	1000 x 2000	1782 x 802	2 m ²	48	21
	15928 B	Pyrobel 8	1400 x 2874	1383 x 850	4 m ²	31	20
	Pr-07-2-161 EN	Pyrobel 8 EG	1200 x 2000	1598 x 818	2.4 m ²	40	28
Alu – SAPA	LP 724/03	Pyrobel 8	1200 x 2000	-	2.4 m ²	33	24

^(*) For alternative systems, please consult AGC
^(**) Extended application of results following EN 15254-4

PYROBEL 8

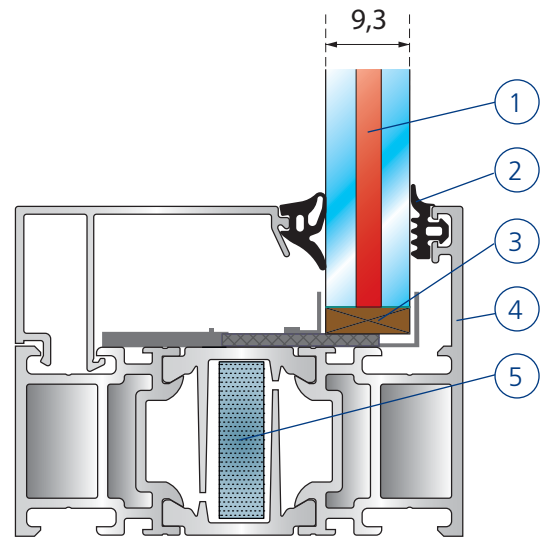
FIRE RESISTANT GLAZING EI 15 AND EW 30 ACCORDING TO EN13501-2

Timber frame (in mm)



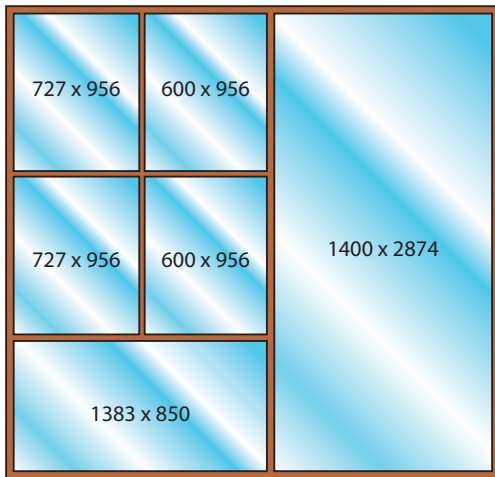
REPORT N° 15928 B

Aluminium frame (in mm)



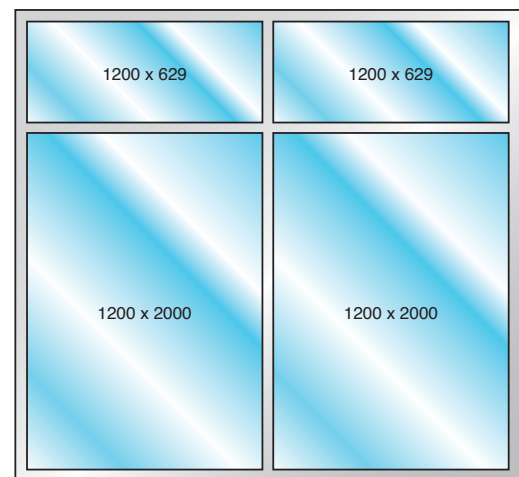
Report N° LP-724-03

Example of assembly (in mm)
Unlimited partition



REPORT N° 15928 B

Example of assembly (in mm)
Unlimited partition



Report N° LP-724-03

- 1 Pyrobel 8
- 2 Neutral silicone
- 3 Ceramic fiber paper Superwool X607 5 mm
- 4 Settings block 5 mm thick
- 5 Wood Meranti
- 6 Steel screw

- 1 Pyrobel 8
- 2 EPDM sealant
- 3 Settings block 4 mm thick
- 4 Aluminium profile
- 5 Fireboard

All of the installation details given in the report must be respected. The only authorised modifications are those mentioned in the report.

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Fire Resistant Glass C+E ENG - CDT s.r.o. - 3/2016

PYROBELITE 10

FIRE RESISTANT GLAZING EW 30

ACCORDING TO EN 13501-2

DESCRIPTION

Pyrobelite 10 is a laminated glass assembled with one clear intumescent interlayer.

In the event of fire, the interlayer transforms into a rigid and opaque fire shield, that keeps out flames and reduces heat transmission. Pyrobelite 10 provides fire resistance in both directions.

TECHNICAL DATA

Specification / Identification Pyrobelite 10



yourglass.com

Glazing type	Single
Grade	Internal
Glass thickness	11 mm
Thickness tolerance	± 1 mm
Dimension tolerance	± 2 mm
Weight	ca 26 kg/m ²
Minimum dimensions	No minimum
Light properties (EN 410): τ_v / ρ_v [%]	86/8
U value (EN 673)	5.6 W/(m ² .K)
Impact resistance (EN 12600)	2B2
Sound reduction (EN 12758): $R_w(C, C_{tr})$	37 dB (-1; -3)

NPD: No performance declared - see Glass Configurator on www.yourglass.com

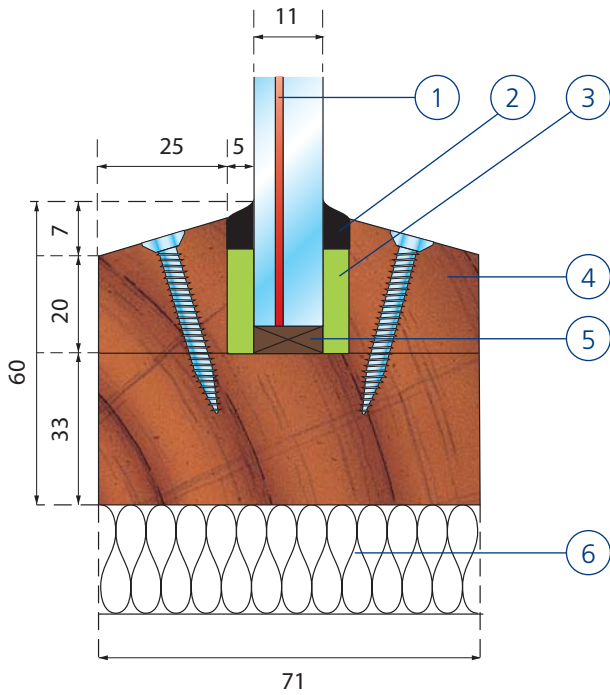
CERTIFICATIONS according to EN 1364-1, EN 1634-1 & EN 13501-2

APPLICATION (*)		REPORT NUMBER	Glazing	Tested dimensions in mm l x h (**)			Results (minutes)	
				Portrait	Landscape	Surface	EW	EI
Partition	Timber	15285 B	Pyrobelite 10	1100 x 2874	1683 x 850	3.16 m ²	36	13
		2014R000957	Pyrobelite 10	1000 x 1808	2864 x 1000	2.86 m ²	45	-
	Steel – Jansen ECO60	15517 B	Pyrobelite 10	1000 x 2860	1775 x 850	2.86 m ²	43	-
		15961 B	Pyrobelite 10 IGU	1000 x 2860	1775 x 850	2.86 m ²	31	-

PYROBELITE 10

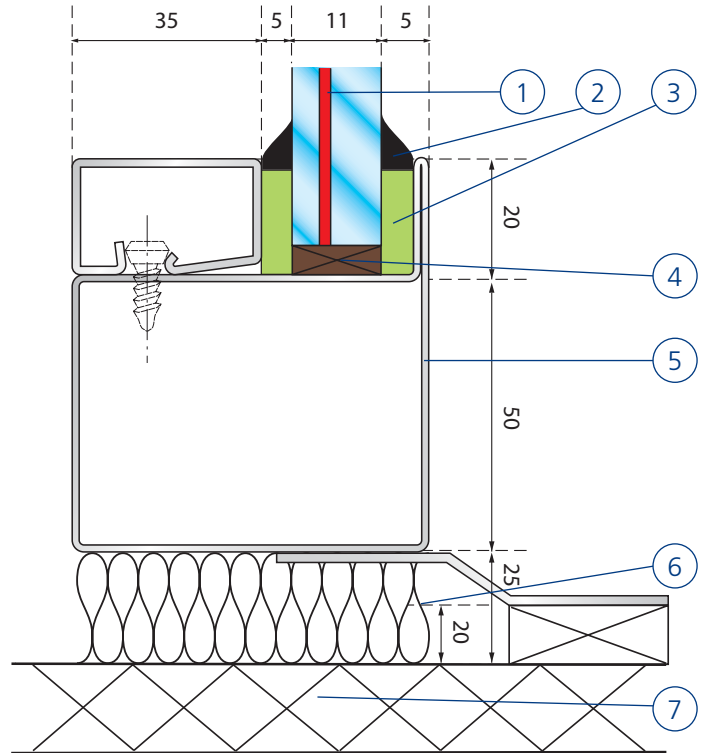
FIRE RESISTANT GLAZING EW 30 ACCORDING TO EN 13501-2

Timber frame (in mm)



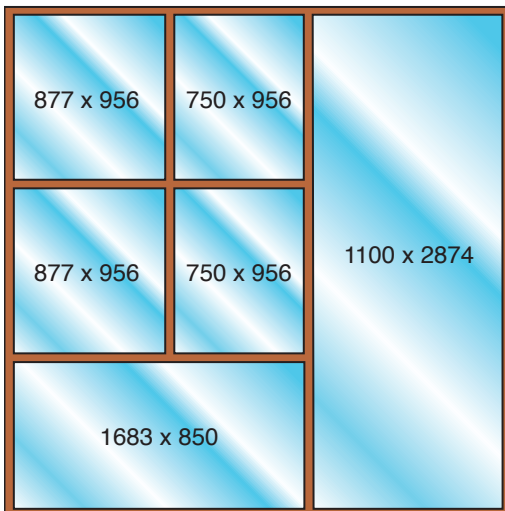
Report N° 15285 B

Steel frame (in mm)



Report N° 15517 B

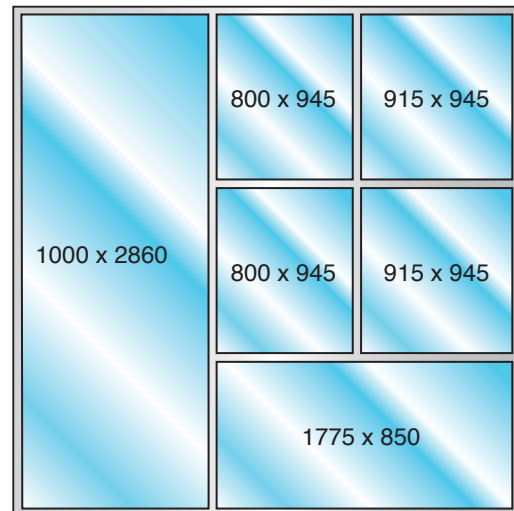
**Example of assembly (in mm)
Unlimited partition**



Report N° 15285 B

- 1 Pyrobelite 10
- 2 DC Firestop 700
- 3 Ceramic fibre paper: Superwool X607
- 4 Wooden frame
- 5 Setting block
- 6 Stonewool

**Example of assembly (in mm)
Unlimited partition**



Report N° 15517 B

- 1 Pyrobelite 10
- 2 DC Firestop 700
- 3 Ceramic fibre paper: Superwool X607
- 4 Setting block
- 5 Steel profile Economy 60
- 6 Mineral wool
- 7 Partition

All of the installation details given in the report must be respected. The only authorised modifications are those mentioned in the report.

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Fire Resistant Glass C+E ENG - CDT s.r.o. - 3/2016

PYROBELITE 12




FIRE RESISTANT GLAZING EI 20, EW 30 AND EW 60
ACCORDING TO EN 13501-2

DESCRIPTION

Pyrobelite 12 is a laminated glass assembled with several clear intumescent interlayers.

In the event of fire, the interlayers transform into rigid and opaque fire shields, that keep out flames and reduce heat transmission with insulation of the partitions. Pyrobelite 12 and 12 EG provide fire resistance in both directions.

TECHNICAL DATA

Specification / Identification	Pyrobelite 12  yourglass.com	Pyrobelite 12 EG  yourglass.com	Pyrobelite 12 / 12 EG  yourglass.com
Glazing type	Single	Single	Double glazed
Grade	Internal	Internal / External	Internal / External
Glass thickness	12.3 mm	16.1 mm	min 28 mm
Thickness tolerance	± 1 mm	± 1 mm	± 2 mm
Dimension tolerance	± 2 mm	± 2 mm	± 3 mm
Weight	ca 27 kg/m ²	ca 35 kg/m ²	min 43 kg/m ²
Minimum dimensions	No minimum	No minimum	300 x 400 mm
Light properties (EN 410): τ_v / ρ_v [%]	86/8	85/8	NPD
U Value (EN 673)	5.6 W/(m ² .K)	5.4 W/(m ² .K)	NPD
Impact resistance (EN 12600)	2B2	1B1	NPD
Sound reduction (EN 12758): Rw(C, Ctr)	36 dB (-1; -3)	38 dB (-1; -3)	NPD

NPD : No performance declared - see Glass Configurator on www.yourglass.com

CERTIFICATIONS according to EN 1364-1, EN 1634-1 & EN 13501-2

APPLICATION (*)	REPORT NUMBER	Glazing	Tested dimensions in mm l x h (**)			Results (minutes)	
			Portrait	Landscape	Surface	EW	EI
Partition	147219	Pyrobelite 12	914 x 2400	1886 x 418	2.19 m ²	60	26
		Pyrobelite 12 EG	1100 x 2874	1683 x 850	3.16 m ²	59	29
	13051 B	Pyrobelite 12	1315 x 2880	1510 x 937	3.79 m ²	35	9
			12529 B	695 x 1889	1424 x 641	1.3 m ²	65
		14426 B	Pyrobelite 12 EG	1000 x 2860	1775 x 800	2.86 m ²	53

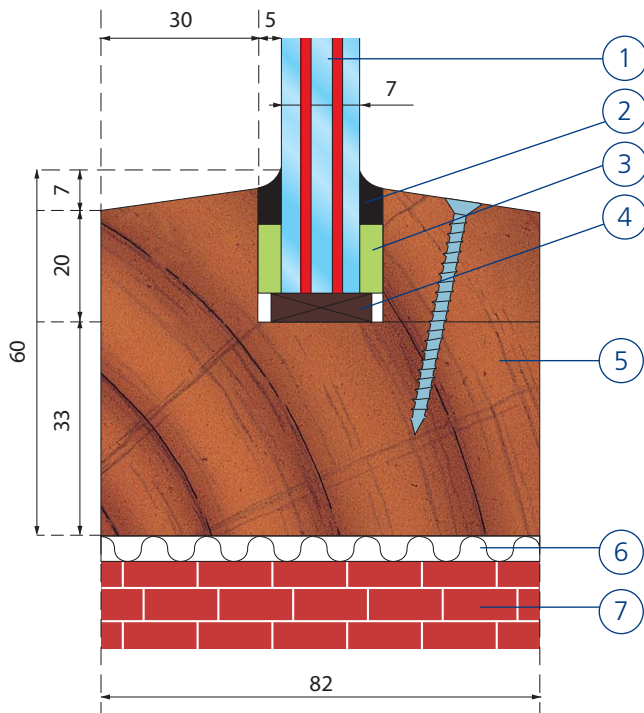
(*) For alternative systems, please consult AGC

(**) Extended application of results following EN 15254-4

PYROBELITE 12

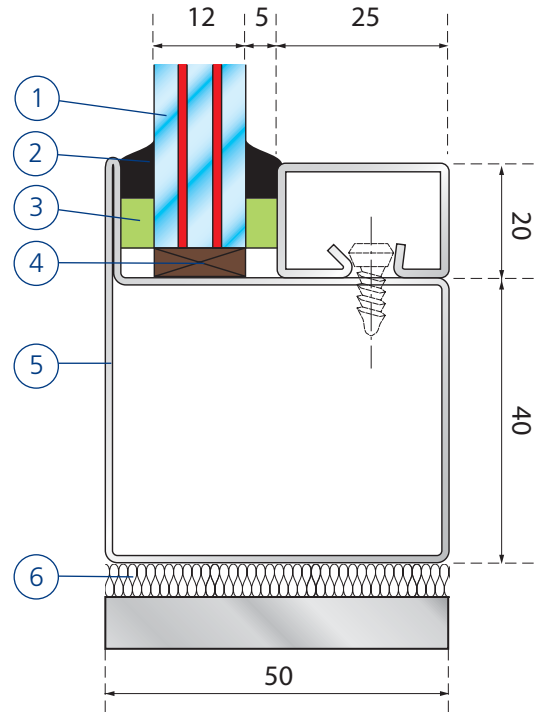
FIRE RESISTANT GLAZING EI 20, EW 30 AND EW 60 ACCORDING TO EN 13501-2

Timber frame (in mm)



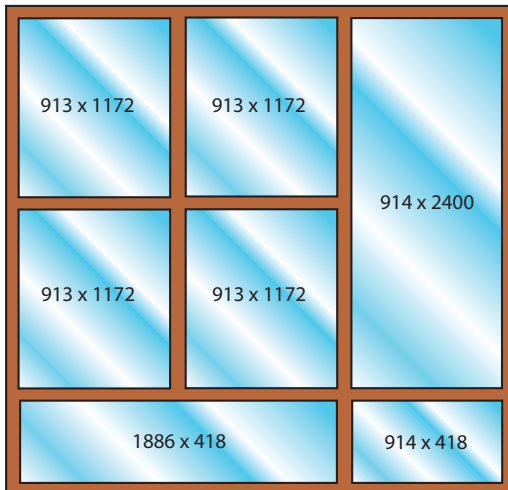
REPORT N° 147219

Steel frame (in mm)



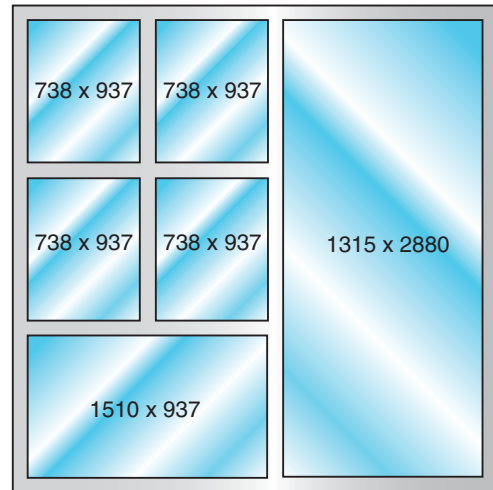
REPORT N° 13051 B

Example of assembly (in mm)
Unlimited partition



REPORT N° 147219

Example of assembly (in mm)
Unlimited partition



REPORT N° 13051 B

- 1 Pyrobelite 12
- 2 DC Firestop 700
- 3 Ceramic fibre paper: Superwool X607
- 4 Setting block
- 5 Hardwood frame
- 6 Ceramic or mineral wool
- 7 Partition

- 1 Pyrobelite 12 / Pyrobelite 12 EG
- 2 DC Firestop 700
- 3 Ceramic fibre paper: Superwool X607
20 x 5 mm
- 4 Setting block
- 5 Steel frame
- 6 Ceramic or mineral wool

AGC

All of the installation details given in the report must be respected. The only authorised modifications are those mentioned in the report.

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PYROBEL 16

FIRE RESISTANT GLAZING EI 30 AND EW 60
ACCORDING TO EN 13501-2

DESCRIPTION

Pyrobel 16 is a laminated glass assembled with several clear intumescent interlayers. In the event of fire, the interlayers transform into rigid and opaque fire shields, that keep out flames and reduce heat transmission with insulation of the partitions. Pyrobel 16 and 16 EG provide fire resistance in both directions.

TECHNICAL DATA

Specification / Identification	Pyrobel 16  yourglass.com	Pyrobel 16 EG  yourglass.com	Pyrobel 16 / 16 EG  yourglass.com
Glazing type	Single	Single	Double Gglazed
Grade	Internal	Internal / External	Internal / External
Glass thickness	17.3 mm	21.1 mm	min 33 mm
Thickness tolerance	± 1 mm	± 1.5 mm	± 3 mm
Dimension tolerance	± 2 mm	± 2 mm	± 3 mm
Weight	ca 40 kg/m ²	ca 48 kg/m ²	min 56 kg/m ²
Minimum dimensions	No minimum	No minimum	300 X 400 mm
Light properties (EN 410): τ_v / ρ_v [%]	84/8	83/7	NPD
U value (EN 673)	5.4 W/(m ² .K)	5.2 W/(m ² .K)	NPD
Impact resistance (EN 12600)	2B2	1B1	NPD
Sound reduction (EN 12758): $R_w(C, C_{tr})$	39 dB (-1; -3)	39 dB (-1; -3)	NPD

NPD: No performance declared - see Glass Configurator on www.yourglass.com

CERTIFICATIONS according to EN 1364-1, EN 1634-1, EN 1364-3 & EN 13501-2

APPLICATION ^(*)	REPORT NUMBER	Glazing	Tested dimensions in mm l x h ^(**)			Results (minutes)	
			Portrait	Landscape	Surface	EW	EI
Partition	12277 B	Pyrobel 16	1600 x 2874	1198 x 500	4.6 m ²	48	36
		Pyrobel 16 IGU	1700 x 2874	-	4.89 m ²	49	34
	12341 B	Pyrobel 16	900 x 2836	1872 x 500	2.55 m ²	66	32
			12342 B	1600 x 2836	1172 x 500	4.54 m ²	52
	12447 B		695 x 1889	1424 x 641	1.31 m ²	68	10
	443863/10		1407 x 2839	1371 x 1005	3.99 m ²	45	31
	14539 B	Pyrobel 16 EG IGU	-	2835 x 1400	3.97 m ²	49	34
16232 B	Pyrobel 16	Pyrobel 16	1350 x 2888	917 x 800	3.90 m ²	48	36
Façades	EF/FV/1080	Pyrobel 16 EG IGU	1440 x 2935	-	4.23 m ²	45	31

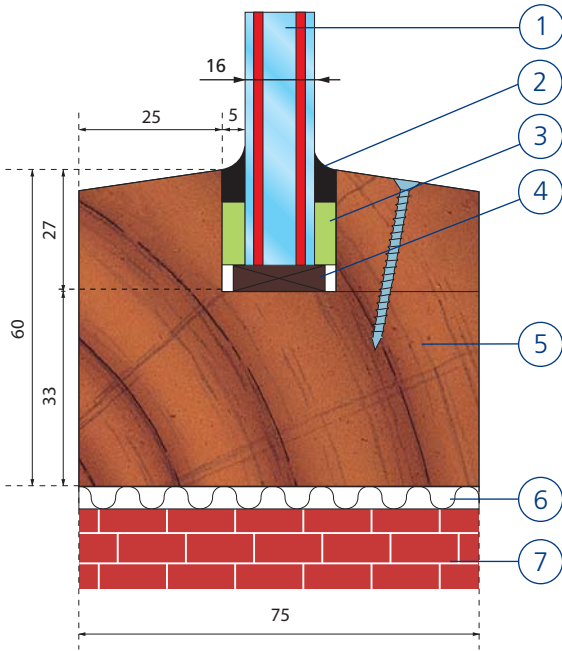
(*) For alternative systems, please consult AGC

(**) Extended application of results following EN 15254-4

PYROBEL 16

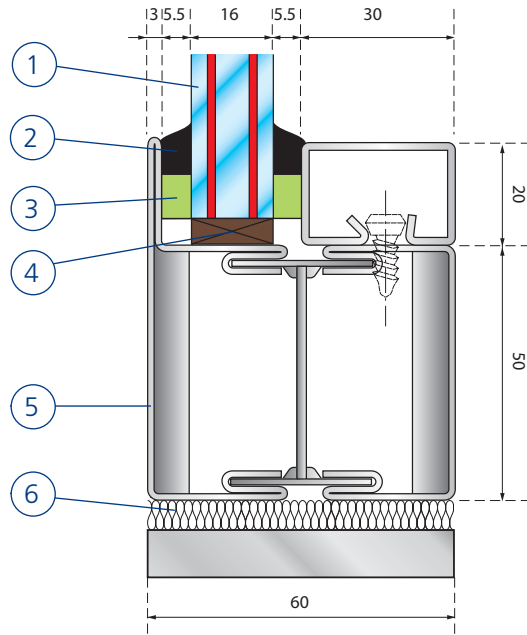
FIRE RESISTANT GLAZING EI 30 AND EW 60 ACCORDING TO EN 13501-2

Timber frame (in mm)



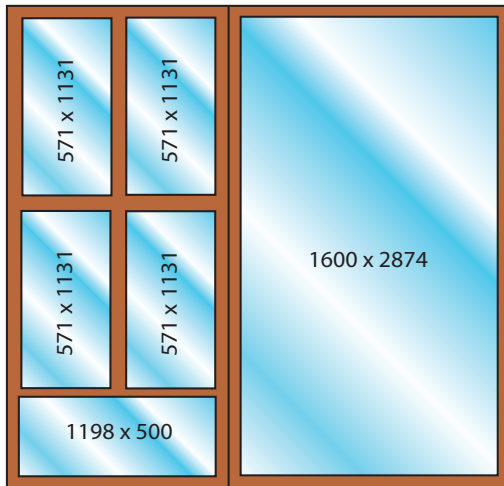
REPORT N° 12277 B

Steel frame (in mm)



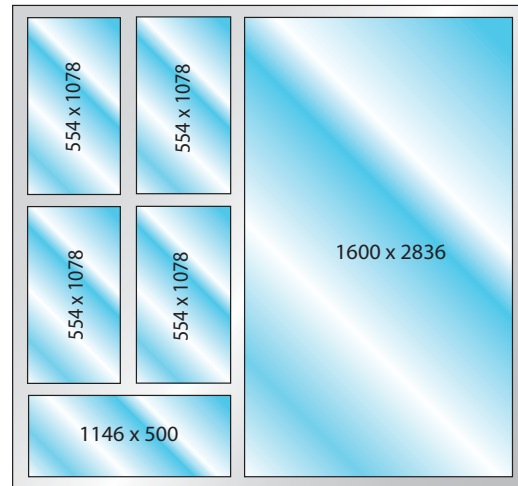
REPORT N° 12342 B

Example of assembly (in mm)
Unlimited partition



REPORT N° 12277 B

Example of assembly (in mm)
Unlimited partition



REPORT N° 12342 B

- 1 Pyrobel 16
- 2 Neutral sealant
- 3 Ceramic fibre paper: Superwool X607 20 x 5 mm
- 4 Setting block
- 5 Hardwood partition
- 6 Ceramic or mineral wool
- 7 Partition

- 1 Pyrobel 16
- 2 Neutral sealant
- 3 Ceramic fibre paper: Superwool X607 20 x 5 mm
- 4 Setting block
- 5 Jansen frame
- 6 Mineral wool

All of the installation details given in the report must be respected. The only authorised modifications are those mentioned in the report.

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Fire Resistant Glass C+E ENG - CDT s.r.o. - 3/2016

PYROBEL 17N

FIRE RESISTANT GLAZING EI 45 AND EW 60
ACCORDING TO EN 13501-2

DESCRIPTION

Pyrobel 17N is a laminated glass assembled with several clear intumescent interlayers.

In the event of fire, the interlayers transform into rigid and opaque fire shields, that keep out flames and reduce heat transmission with insulation of the partitions. Pyrobel 17N and 17N EG provide fire resistance in both directions.

TECHNICAL DATA

Specification / Identification	Pyrobel 17N  yourglass.com	Pyrobel 17N EG  yourglass.com	Pyrobel 17N / 17N EG  yourglass.com
Glazing type	Single	Single	Double glazed
Grade	Internal	Internal / External	Internal / External
Glass thickness	17.8 mm	21.6 mm	min 34 mm
Thickness tolerance	± 1.6 mm	± 1.8 mm	± 2 mm
Dimension tolerance	± 2 mm	± 3 mm	± 3 mm
Weight	ca 40 kg/m ²	ca 48 kg/m ²	min 56 kg/m ²
Minimum dimensions	No minimum	No minimum	300 x 400 mm
Light properties (EN 410): τ_v / ρ_v [%]	86/8	85/8	NPD
U Value (EN 673)	5.4 W/(m ² .K)	5.2 W/(m ² .K)	NPD
Impact resistance (EN 12600)	1B1	1B1	NPD
Sound reduction (EN 12758): $R_w(C, C_{tr})$	39 dB (0; -3)	40 dB (-1; -3)	NPD

NPD: No performance declared - see Glass Configurator on www.yourglass.com

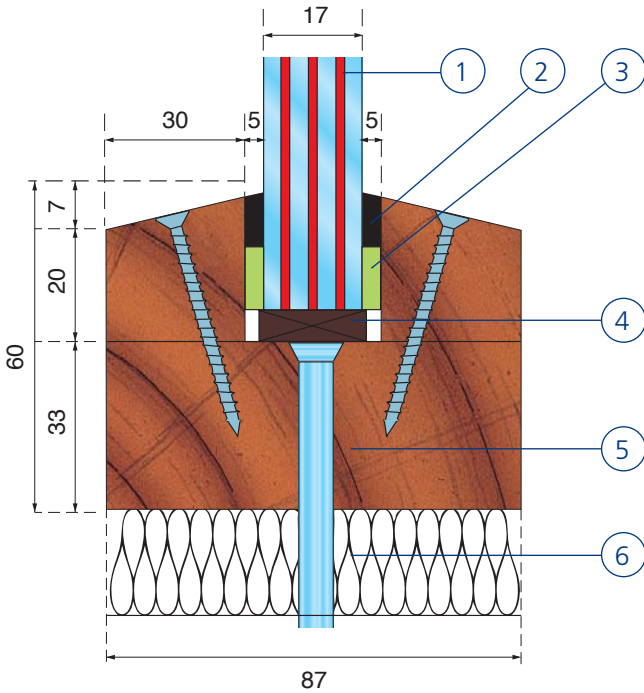
CERTIFICATIONS according to EN 1364-1, EN 1634-1 & EN 13501-2

APPLICATION (*)		REPORT NUMBER	Glazing	Tested dimensions in mm l x h (**)			Results (minutes)	
				Portrait	Landscape	Surface	EW	EI
Partition	Timber	14263 B	Pyrobel 17N	1300 x 2874	1498 x 850	3.73 m ²	79	49
		14295 B	Pyrobel 17N EG	1256 x 2830	1498 x 850	3.55 m ²	57	49
		14652 B	Pyrobel 17N IGU	1300 x 2874	1483 x 850	3.73 m ²	73	64
	Steel – Jansen ECO50	13931 B	Pyrobel 17N	1100 x 2861	1719 x 832	3.15 m ²	70	10
		14461 B		1300 x 2850	1470 x 830	3.71 m ²	73	48
	Steel – Jansen ECO60	14335 B	Pyrobel 17N EG	1100 x 2860	1720 x 836	3.15 m ²	74	10
	Alu - Schüco ADS 80 RF60	16871	Pyrobel 17N	1350 x 2888	917 x 800	3.89 m ²	58	50
	Alu - Schüco ADS 80 RF60	17082 B		1350 x 2888	917 x 800	3.89 m ²	60	48

PYROBEL 17N

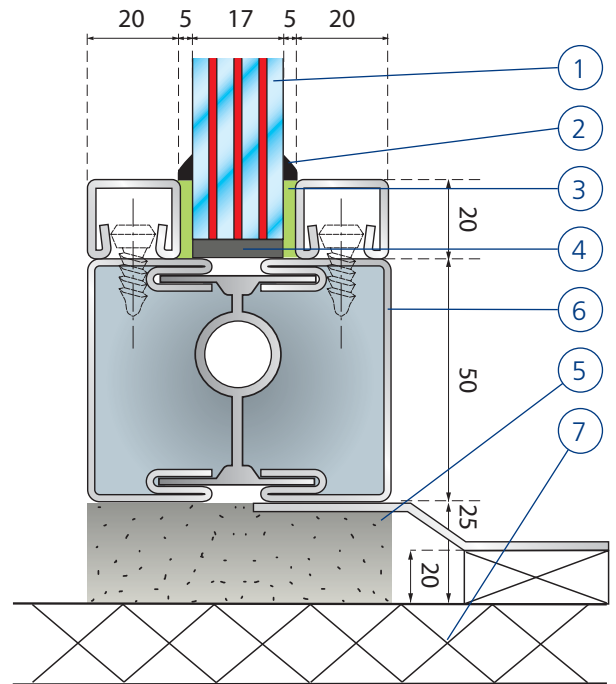
FIRE RESISTANT GLAZING EI 45 AND EW 60 ACCORDING EN 13501-2

Timber frame (in mm)



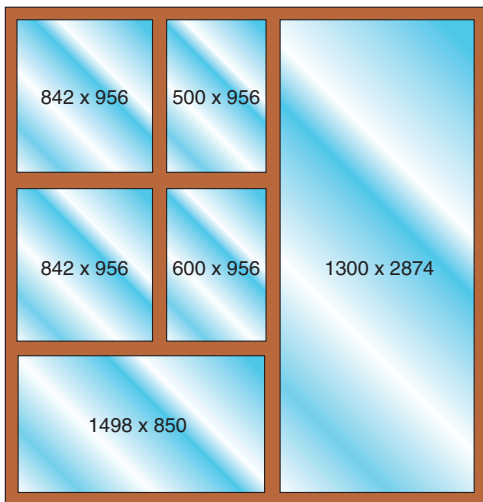
REPORT N° 14263 B

Steel frame (in mm)



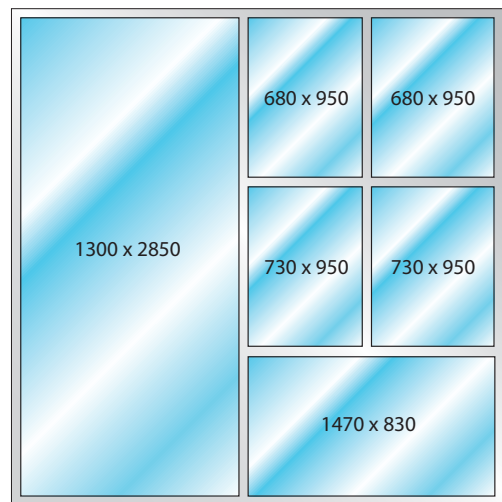
REPORT N° 14461 B

Example of assembly (in mm)
Unlimited partition



REPORT N° 14263 B

Example of assembly (in mm)
Unlimited partition



REPORT N° 14461 B

- 1 Pyrobel 17N - Pyrobel 17N IGU
- 2 DC Firestop 700
- 3 Ceramic fibre paper: Superwool X607
- 4 Setting block
- 5 Hardwood frame
- 6 Ceramic or mineral wool

- 1 Pyrobel 17N
- 2 DC Firestop 700
- 3 Ceramic fibre paper: Superwool X607
- 4 Setting block
- 5 Promatect H
- 6 Jansen C4
- 7 Partition

All of the installation details given in the report must be respected. The only authorised modifications are those mentioned in the report.

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PYROBEL 25

FIRE RESISTANT GLAZING EI 60
ACCORDING TO EN 13501-2

DESCRIPTION

Pyrobel 25 is a laminated glass assembled with several clear intumescent interlayers. In the event of fire, the interlayers transform into rigid and opaque fire shields, that keep out flames and reduce heat transmission with insulation of the partitions. Pyrobel 25 and 25 EG provide fire resistance in both directions.

TECHNICAL DATA

Specification / Identification	Pyrobel 25  yourglass.com	Pyrobel 25 EG  yourglass.com	Pyrobel 25 / 25 EG  yourglass.com
Glazing type	Single	Single	Double glazed
Grade	Internal	Internal / External	Internal / External
Glass thickness	26.6 mm	30.4 mm	min 43 mm
Thickness tolerance	± 2 mm	± 2 mm	± 3 mm
Dimension tolerance	± 2 mm	± 2 mm	± 3 mm
Weight	ca 60 kg/m ²	ca 68 kg/m ²	min 75 kg/m ²
Minimum dimensions	No minimum	No minimum	300 x 400 mm
Light properties (EN 410): τ_v / ρ_v [%]	81/7	80/7	NPD
U value (EN 673)	5.2 W/(m ² .K)	5.0 W/(m ² .K)	NPD
Impact resistance (EN 12600)	1B1	1B1	NPD
Sound reduction (EN 12758): $R_w(C, C_{tr})$	40 dB (-1; -3)	43 dB (-1; -4)	NPD

NPD: No performance declared - see Glass Configurator on www.yourglass.com

CERTIFICATIONS according to EN 1364-1, EN 1634-1 & EN 13501-2

APPLICATION ^(*)	REPORT NUMBER	Glazing	Tested dimensions in mm l x h ^(**)			Results (minutes)		
			Portrait	Landscape	Surface	EW	EI	
Partition	Pr - 01 - 02.053	Pyrobel 25	1400 x 2700	1398 x 844	3.78 m ²	77	76	
		Pyrobel 25 EG	1120 x 1808	2307 x 1400	3.23 m ²	75	75	
		Pyrobel 25 IGU	1700 x 2874	-	4.88 m ²	82	67	
	Steel – Jansen Janisol 3k	11560 B	Pyrobel 25	1913 x 2865	-	5.48 m ²	82	63
	Steel – Jansen Janisol C4	11V756	Pyrobel 25 IGU	-	2390 x 870	2.07 m ²	77	77
	Steel – Forster Fuegolight	05G309	Pyrobel 25	1400 x 2700	-	3.78 m ²	79	75
	Alu – Ponzio PE78 EI	LP01-2849/14/Z00NP		896 x 2598	2600 x 1500	3.90 m ²	61	61
	Alu – Schüco ADS 80 FR60	16269 B		1500 x 2888	360 x 996	4.33 m ²	69	69
	Alu – Schüco ADS 80 FR60	15-V000-831		315 x 1840	1520 x 2420	3.68 m ²	73	73
Façade	Steel – Jansen Viss Fire	12031 B	Pyrobel 25 IGU	1395 x 2903	1478 x 1303	4.05 m ²	80	67
	Steel – Forster Thermix Vario	R0750	Pyrobel 25 EG IGU	1500 x 2920	-	4.38 m ²	75	75

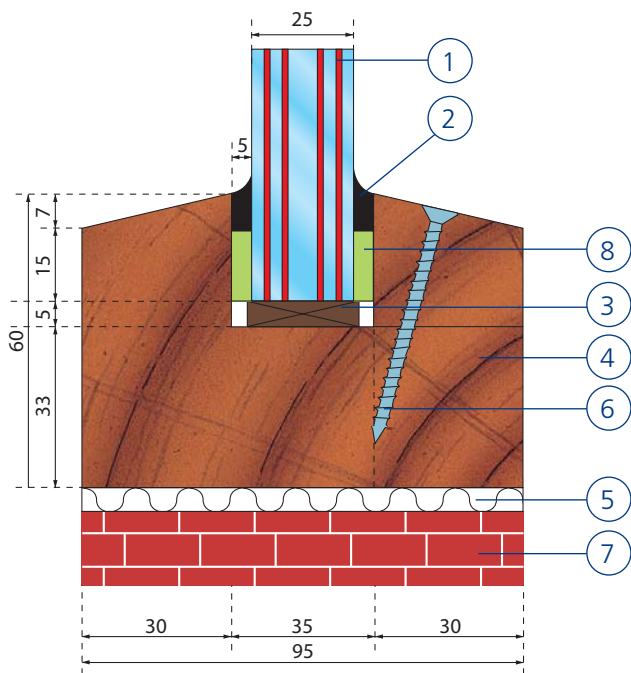
(*) For alternative systems, please consult AGC

(**) Extended application of results following EN 15254-4

PYROBEL 25

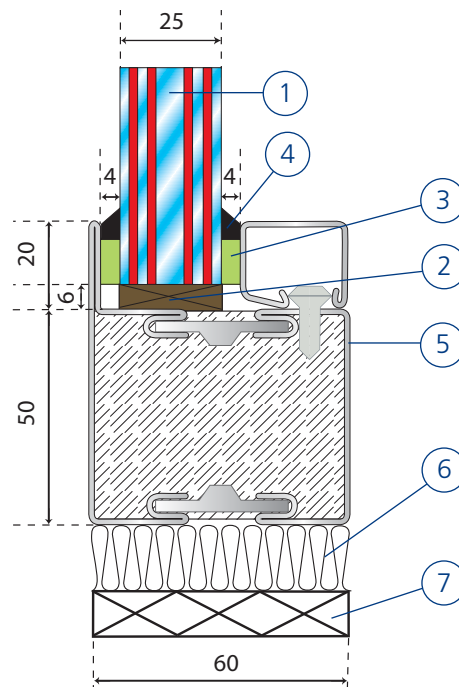
FIRE RESISTANT GLAZING EI 60 ACCORDING TO EN 13501-2

Timber frame (in mm)



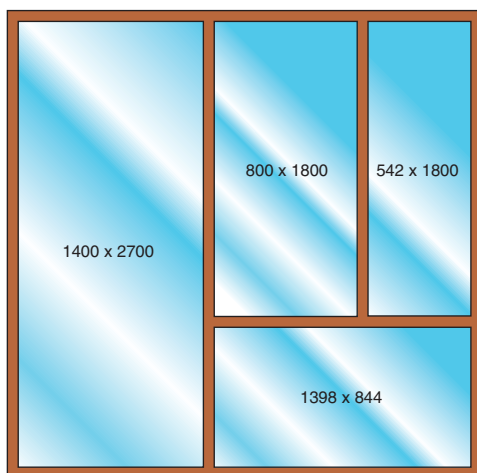
REPORT N° Pr - 01 - 02.053

Steel frame (in mm)



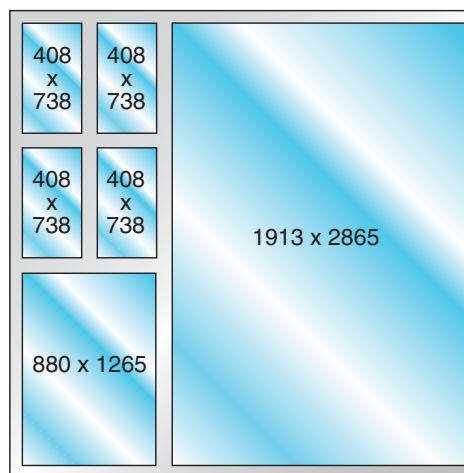
REPORT N° 11560 B

Example of assembly (in mm)
Unlimited partition



REPORT N° Pr - 01 - 02.053

Example of assembly (in mm)
Unlimited partition



REPORT N° 11560 B

- 1 Pyrobel 25
- 2 Neutral sealant
- 3 Setting block 70 x 5 mm
- 4 Hardwood frame
- 5 Ceramic or mineral wool
- 6 Steel screw 50 x 4 mm
- 7 Partition
- 8 Foam tape with closed cells

- 1 Pyrobel 25 - Pyrobel 25EG
- 2 Setting block 70 x 26 x 6 mm
- 3 Ceramic fibre paper 20 x 4 Fiberfrax or Superwool X607
- 4 Neutral sealant
- 5 Steel frame
- 6 Ceramic or mineral wool
- 7 Partition

All of the installation details given in the report must be respected. The only authorised modifications are those mentioned in the report.

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PYROBEL 30

FIRE RESISTANT GLAZING EI 90
ACCORDING TO EN 13501-2

DESCRIPTION

Pyrobel 30 is a laminated glass assembled with several clear intumescent interlayers. In the event of fire, the interlayers transform into rigid and opaque fire shields, that keep out flames and reduce heat transmission with insulation of the partitions. Pyrobel 30 and 30 EG provide fire resistance in both directions.

TECHNICAL DATA

Specification / Identification	Pyrobel 30	Pyrobel 30 EG	Pyrobel 30 / 30 EG
	 yourglass.com	 yourglass.com	 yourglass.com
Glazing type	Single	Single	Double glazed
Grade	Internal	Internal / External	Internal / External
Glass thickness	30 mm	33,7 mm	min 46 mm
Thickness tolerance	± 2.5 mm	± 2.8 mm	± 3 mm
Dimension tolerance	± 2 mm	± 2 mm	± 3 mm
Weight	ca 69 kg/m ²	ca 77 kg/m ²	min 84 kg/m ²
Minimum dimensions	No minimum	No minimum	300 x 400 mm
Light properties (EN 410): τ_v / ρ_v [%]	83/8	81/8	NPD
U value (EN 673)	5.1 W/(m ² .K)	4.9 W/(m ² .K)	NPD
Impact resistance (EN 12600)	1B1	1B1	NPD
Sound reduction (EN 12758): Rw(C, Ctr)	42 dB (-1; -4)	43 dB (-1; -4)	NPD

NPD: No performance declared - see Glass Configurator on www.yourglass.com

CERTIFICATIONS according to EN 1364-1, EN 1634-1 & EN 13501-2

APPLICATION (*)		REPORT NUMBER	Glazing	Tested dimensions in mm l x h (**)			Results (minutes)	
				Portrait	Landscape	Surface	EW	EI
Partition	Steel – Jansen Janisol C4	10V433	Pyrobel 30	1502 x 1508	-	2.26 m ²	93	90
			Pyrobel 30 EG	278 x 1508	1204 x 695	0.84 m ²	93	90
			Pyrobel 30 IGU	940 x 1580	2502 x 1302	3.25 m ²	93	90
	Steel Insulated	3169/607/11	Pyrobel 30	1400 x 2920	1490 x 953	4.08 m ²	90	90

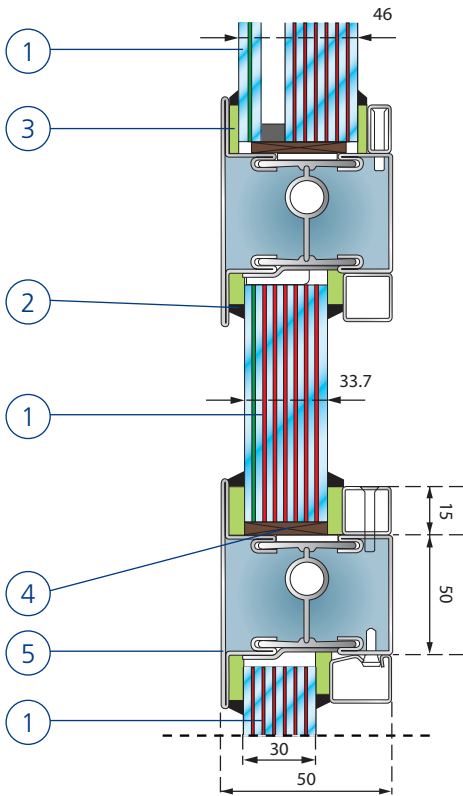
(*) For alternative systems, please consult AGC

(**) Extended application of results following EN 15254-4

PYROBEL 30

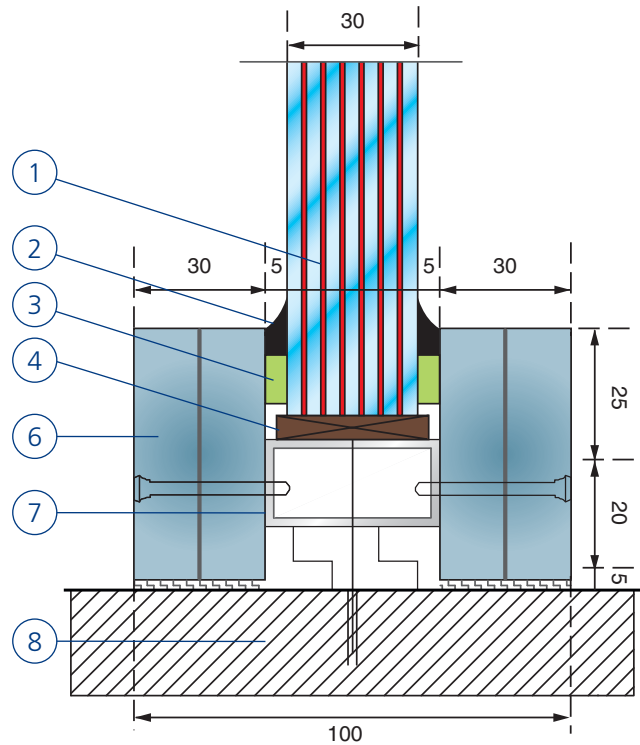
FIRE RESISTANT GLAZING EI 90 ACCORDING TO EN13501-2

Steel frame (in mm)



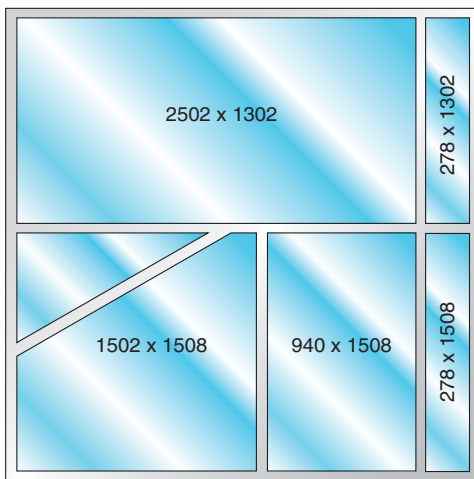
REPORT N° 10V433

Steel frame (in mm)



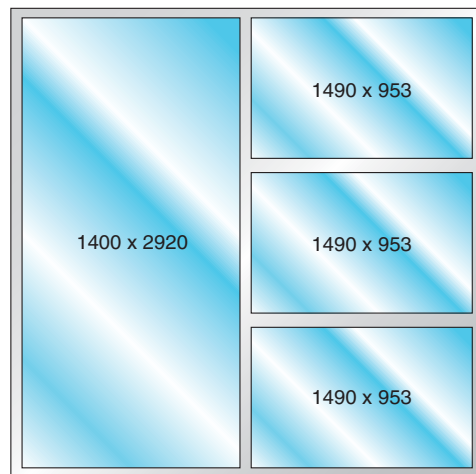
REPORT N° 3169/607/11

Example of assembly (in mm)
Unlimited partition



REPORT N° 10V433

Example of assembly (in mm)
Unlimited partition



REPORT N° 3169/607/11

- | | |
|-----------------------------------------------|---------------|
| 1 Pyrobel 30 - Pyrobel 30 EG - Pyrobel 30 IGU | 5 Janisol C4 |
| 2 Firestop 700 | 6 Promatect H |
| 3 Ceramic fibre paper: Superwool X607 | 7 Steel tube |
| 4 Setting block | 8 Partition |

All of the installation details given in the report must be respected. The only authorised modifications are those mentioned in the report.

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PYROBEL 53N

FIRE RESISTANT GLAZING EI 120



ACCORDING TO EN 13501-2

DESCRIPTION

Pyrobel 53N is a laminated glass assembled with several clear intumescent interlayers.

In the event of fire, the interlayers transform into rigid and opaque fire shields, that keep out flames and reduce heat transmission with insulation of the partitions. Pyrobel 53N and 53N EG provide fire resistance in both directions.

TECHNICAL DATA

Specification / Identification	Pyrobel 53N  yourglass.com	Pyrobel 53N EG  yourglass.com
Glazing type	Single	Single
Grade	Internal	Internal / External
Glass thickness	52.7 mm	56.5 mm
Thickness tolerance	± 3 mm	± 3 mm
Dimension tolerance	± 2 mm	± 2 mm
Weight	ca 122 kg/m ²	ca 130 kg/m ²
Minimum dimensions	No minimum	No minimum
Light properties (EN 410): τ_v / ρ_v [%]	75/6	73/7
U value (EN 673)	4.5 W/(m ² .K)	4.4 W/(m ² .K)
Impact resistance (EN 12600)	1B1	1B1
Sound reduction (EN 12758): Rw(C, Ctr)	48 dB (-2; -7)	49 dB (-2; -7)

NPD: No performance declared - see Glass Configurator on www.yourglass.com

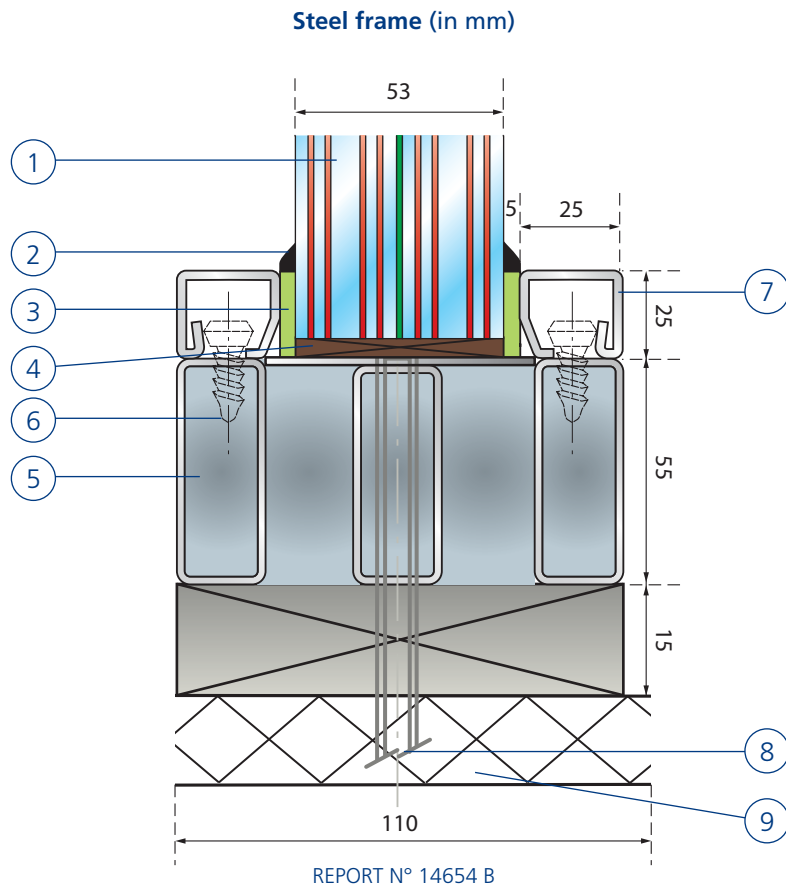
CERTIFICATIONS according to EN 1364-1, EN 1634-1 & EN 13501-2

APPLICATION ^(*)		REPORT NUMBER	Glazing	Tested dimensions in mm l x h ^(**)			Results (minutes)	
				Portrait	Landscape	Surface	EW	EI
Partition	Steel – Forster Fuego	14654 B	Pyrobel 53N	1300 x 2850	1460 x 800	3.71 m ²	123	123

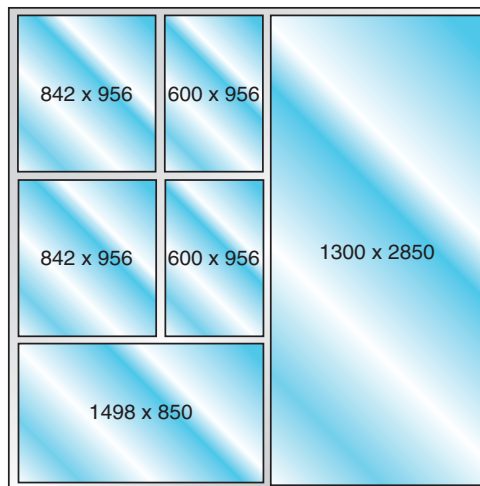
^(*) For alternative systems, please consult AGC
^(**) Extended application of results following EN 15254-4

PYROBEL 53N

FIRE RESISTANT GLAZING EI 120 ACCORDING TO EN 13501-2



Example of assembly (in mm)
Unlimited partition



REPORT N° 14654 B

- | | |
|----------------------------------------|-------------------------------------------|
| 1 Pyrobel 53N | 6 Steel screw |
| 2 Silicone Momentive Pensil 300 - grey | 7 Beads |
| 3 Superwool Paper X607 | 8 Fixations: Hilti 100 HT - Ø 10 x 132 mm |
| 4 Setting block 5 mm | 9 Partition |
| 5 Forster Fuego frame | |

All of the installation details given in the report must be respected. The only authorised modifications are those mentioned in the report.

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PYROBEL Horizontal

FIRE RESISTANT GLAZING EI 30, EI 45 AND EI 60
ACCORDING TO EN 13501-2

DESCRIPTION

Pyrobel 19H, 23H and 28H are a laminated glasses assembled with several clear intumescent interlayers. In the event of fire, the interlayers transform into rigid and opaque fire shields, that keep out flames and reduce heat transmission with insulation of the partitions. Pyrobel 19H, 23H and 28H provide fire resistance from the bottom side.

TECHNICAL DATA

Specification / Identification	Pyrobel 19H  yourglass.com	Pyrobel 23H  yourglass.com	Pyrobel 28H  yourglass.com
Glazing type	Single	Single	Single
Grade	Internal / External	Internal / External	Internal / External
Glass thickness	19.1 mm	23.7 mm	28.4 mm
Thickness tolerance	± 1.5 mm	± 1.8 mm	± 2 mm
Dimension tolerance	± 2 mm	± 2 mm	± 2 mm
Weight	ca 43 kg/m ²	ca 54 kg/m ²	min 63 kg/m ²
Minimum dimensions	No minimum	No minimum	No minimum
Light properties (EN 410): τ_v / ρ_v [%]	81/7	80/7	78/7
U value (EN 673)	5.2 W/(m ² .K)	5 W/(m ² .K)	4.9 W/(m ² .K)
Impact resistance (EN 12600)	1B1	1B1	1B1
Sound reduction (EN 12758): $R_w(C, C_{tr})$	38 dB (-1; -3)	39 dB (0; -3)	41 dB (0; -3)

NPD: No performance declared - see Glass Configurator on www.yourglass.com

CERTIFICATIONS according to EN 1365-2 & EN 13501-2

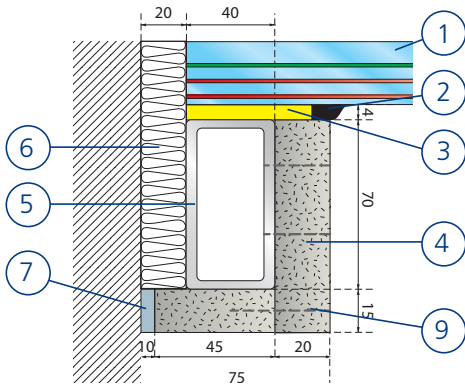
APPLICATION (*)		REPORT NUMBER	Glazing	Tested dimensions in mm l x h (**)		Results (minutes)	
				Horizontal	Surface	EW	EI
Floor / Ceiling	Steel Insulated	Pr-05-1.02.086	Pyrobel 19H	1100 x 2100	2.31 m ²	30	30
		Pr-04-1.02.140	Pyrobel 23H	1100 x 2100	2.31 m ²	54	54
		Pr-04-1.02.149	Pyrobel 28H	1100 x 2100	2.31 m ²	61	61

(*) For alternative systems, please consult AGC
(**) Extended application of results following EN 15254-4

PYROBEL Horizontal

FIRE RESISTANT GLAZING EI 30, EI 45 AND EI 60 ACCORDING EN 13501-2

Steel frame EI 30* (in mm)



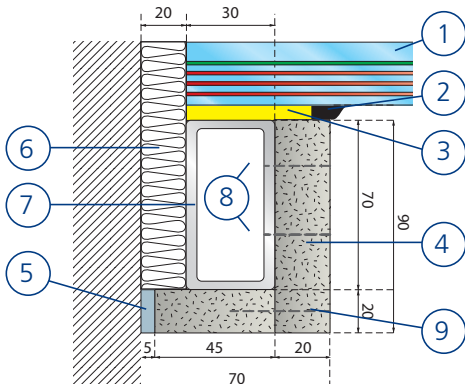
- 1 Pyrobel 19H
- 2 Neutral sealant
- 3 Alsiflex 4 mm
- 4 Calcium silicate
- 5 Steel tube 70 x 40 x 4 mm
- 6 Mineral wool
- 7 Promaseal - Mastic acrylate sealant
- 9 Steel clips

REPORT N° Pr-05-1.02.086

Example of assembly (in mm) Unlimited length



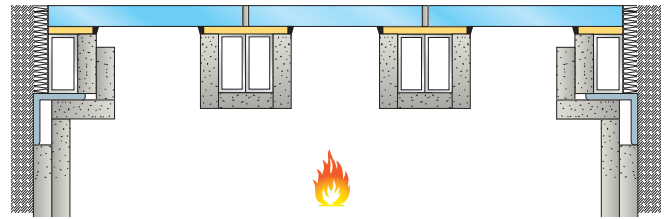
Steel frame EI 45* (in mm)



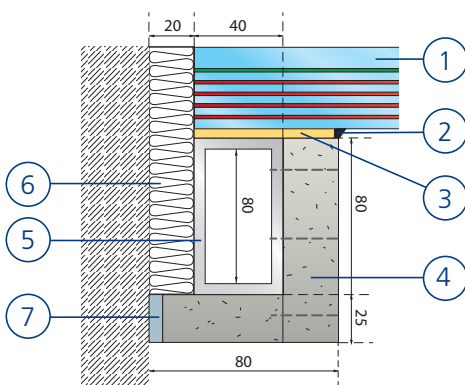
- 1 Pyrobel 23 H
- 2 Promaseal fire resistant silicone
- 3 Alsiflex 4 mm
- 4 Promatect H 20 mm
- 5 Promaseal - Mastic acrylate sealant
- 6 Mineral wool
- 7 Steel tube 70 x 30 x 4 mm
- 8 Screw 3.9 x 38 mm pitch 200 mm
- 9 Steel clips 50/11.2/1.53 mm pitch ca 100 mm

REPORT N° Pr-04-1.02.140

Example of assembly (in mm)



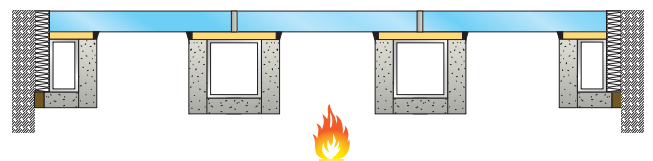
Steel frame EI 60* (in mm)



- 1 Pyrobel 28H
- 2 Neutral sealant
- 3 Promaglaf 2 mm
- 4 Promatect H 25 mm
- 5 Steel tube 80 x 40 x 5 mm
- 6 Ceramic or mineral wool
- 7 Promaseal - Mastic acrylate sealant

REPORT N° Pr-04-1.02.149

Example of assembly (in mm)



* For floor applications, please contact your AGC technical team.

All of the installation details given in the report must be respected. The only authorised modifications are those mentioned in the report.

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PYROBEL 16 VL

FIRE RESISTANT GLAZING EI 30



ACCORDING TO EN 13501-2

DESCRIPTION

Pyrobel 16 VL is a laminated glass assembled with several clear intumescent interlayers.

In the event of fire, the interlayers transform into rigid and opaque fire shields, that keep out flames and reduce heat transmission with insulation of the partitions. Pyrobel 16 VL and 16 VL EG provide fire resistance in both directions.

TECHNICAL DATA

Specification / Identification	Pyrobel 16 VL	Pyrobel 16 EG VL	Pyrobel 16 EG2 VL	Pyrobel 16+6 EG VL
	 yourglass.com	 yourglass.com	 yourglass.com	 yourglass.com
Glazing type	Single	Single	Single	Single
Grade	Internal	Internal / External	Internal / External	Internal / External
Glass thickness	17.3 mm	21.1 mm	24.8 mm	24 mm
Thickness tolerance	± 1 mm	± 1.5 mm	± 1.7 mm	± 1.6 mm
Dimension tolerance	± 2 mm	± 2 mm	± 2 mm	± 2 mm
Weight	ca 40 kg/m ²	ca 48 kg/m ²	ca 56 kg/m ²	ca 57 kg/m ²
Minimum dimensions	No minimum	No minimum	No minimum	No minimum
Light properties (EN 410): τ_v / ρ_v [%]	84/8	83/7	81/7	81/7
U value (EN 673)	5.4 W/(m ² .K)	5.2 W/(m ² .K)	5.0 W/(m ² .K)	5.2 W/(m ² .K)
Impact resistance (EN 12600)	2B2	1B1	1B1	1B1
Sound reduction (EN 12758): $R_w(C, C_{tr})$	39 dB (-1; -3)	39 dB (-1; -3)	39 dB (-1; -3)	39 dB (-1; -3)

NPD : No performance declared - see Glass Configurator on www.yourglass.com

CERTIFICATIONS according to EN 1364-1, EN 1634-1 & EN 13501-2

APPLICATION ^(*)		REPORT NUMBER	Glazing	Tested dimensions in mm l x h ^(**)		Results (minutes)	
				Portrait	Surface	EW	EI
Partition	Timber	13407 B	Pyrobel 16 VL	1200 x 2874	3.45 m ²	34	34
		13697 B	Pyrobel 16 EG VL	1000 x 2874	2.87 m ²	38	38
		13408 B	Pyrobel 16 EG2 VL	1200 x 2874	3.45 m ²	45	38
	Steel – Jansen Janisol 2	13575 B	Pyrobel 16 VL	1200 x 2840	3.40 m ²	41	38
	ALU - Schüco ADS 80 FR 30	14655 B	Pyrobel 16 VL	1000 x 2850	2.85 m ²	36	30
Partition Corners	Steel – Jansen Janisol 2	R9291	Pyrobel 16+6 VL	1234 x 2860	3.53 m ²	51	37
	ALU - Schüco ADS 80 FR 30	R9291 b		1000 x 2860	2.85 m ²	30	30
	Timber			1000 x 2860	2.85 m ²	30	30

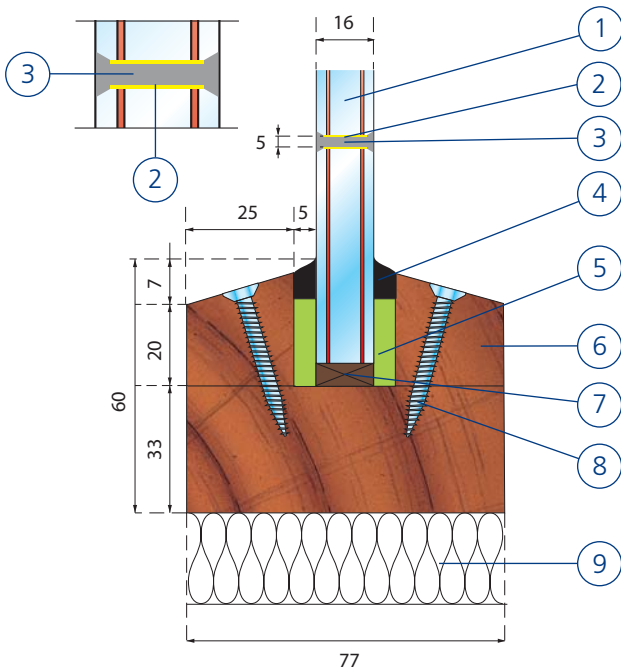
(*) For alternative systems, please consult AGC

(**) Extended application of results following EN 15254-4

PYROBEL 16 VL

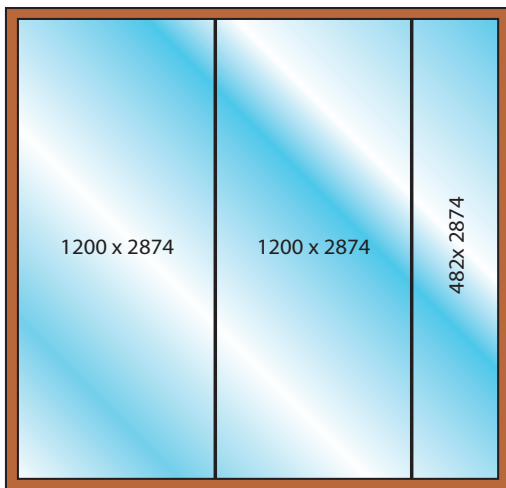
FIRE RESISTANT GLAZING EI 30 ACCORDING TO EN 13501-2

Timber frame (in mm)



REPORT N° 13407 B

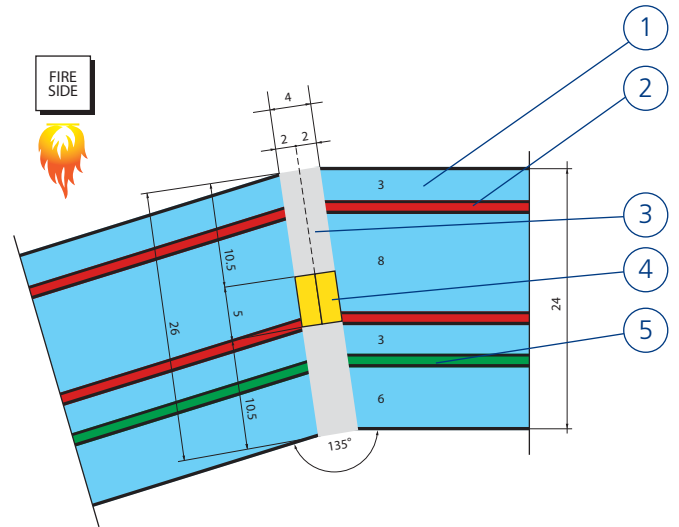
Example of assembly (in mm)
Unlimited partition



REPORT N° 13407 B

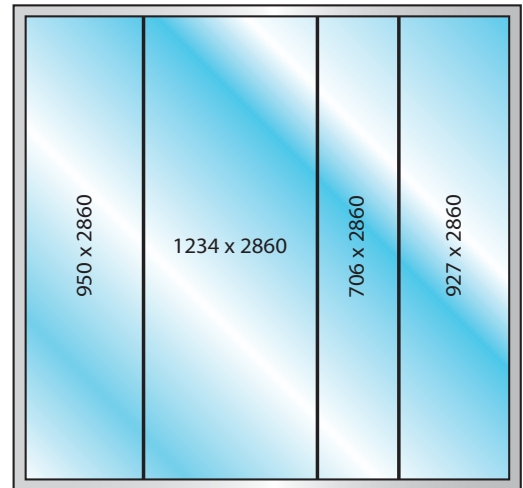
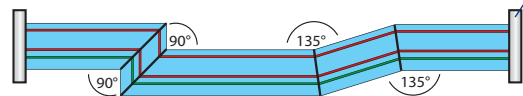
- 1 Pyrobel 16 VL
- 2 ALU tape
- 3 Silicone DC Firestop 700
- 4 Silicone DC Firestop 700
- 5 Ceramic Paper Superwool X607
- 6 Wood Meranti 527 kg/m³
- 7 Setting block Promatect-H 6 mm
- 8 Screw – steel, diameter 4 mm – length 50 mm
- 9 Ceramic wool

Steel frame (in mm)



REPORT N° 9291[Rev. 1]

Example of assembly (in mm)
Unlimited partition



REPORT N° R9291

- 1 Pyrobel 16+6 VL (EG)
- 2 Fire resistant layer
- 3 Neutral silicone – Momentive Pensil 300 – grey
- 4 Self-adhesive Gluske Kerafix FXL 200
- 5 PVB 0.76 mm
- 6 Steel frame Janisol 2

Fire Resistant Glass C+E E.ENG - CDT s.r.o. - 3/2016

AGC

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PYROBEL 17N EG2 VL

FIRE RESISTANT GLAZING EI 45

ACCORDING TO EN 13501-2

DESCRIPTION

Pyrobel 17N EG2 VL is a laminated glass assembled with several clear intumescent interlayers.

In the event of fire, the interlayers transform into rigid and opaque fire shields, that keep out flames and reduce heat transmission with insulation of the partitions. Pyrobel 17N EG2 VL provide fire resistance in both directions.

TECHNICAL DATA

Specification / Identification

Pyrobel 17N EG2 VL



yourglass.com

Glazing type	Single
Grade	Internal / External
Glass thickness	25.3 mm
Thickness tolerance	± 2 mm
Dimension tolerance	± 2 mm
Weight	ca 56 kg/m ²
Minimum dimensions	No minimum
Light properties (EN 410): τ_v / ρ_v [%]	83/8
U value (EN 673)	5.0 W/(m ² .K)
Impact resistance (EN 12600)	1B1
Sound reduction (EN 12758): Rw(C, Ctr)	40 dB (-1; -3)

NPD : No performance declared - see Glass Configurator on www.yourglass.com

CERTIFICATIONS according to EN 1364-1, EN 1634-1 & EN 13501-2

APPLICATION (*)		REPORT NUMBER	Glazing	Tested dimensions in mm l x h (**)		Results (minutes)	
				Portrait	Surface	EW	EI
Partition	ALU - Schüco ADS 80 FR 60	16931 B	Pyrobel 17N EG2 VL	1000 x 2888	2.88 m ²	59	53

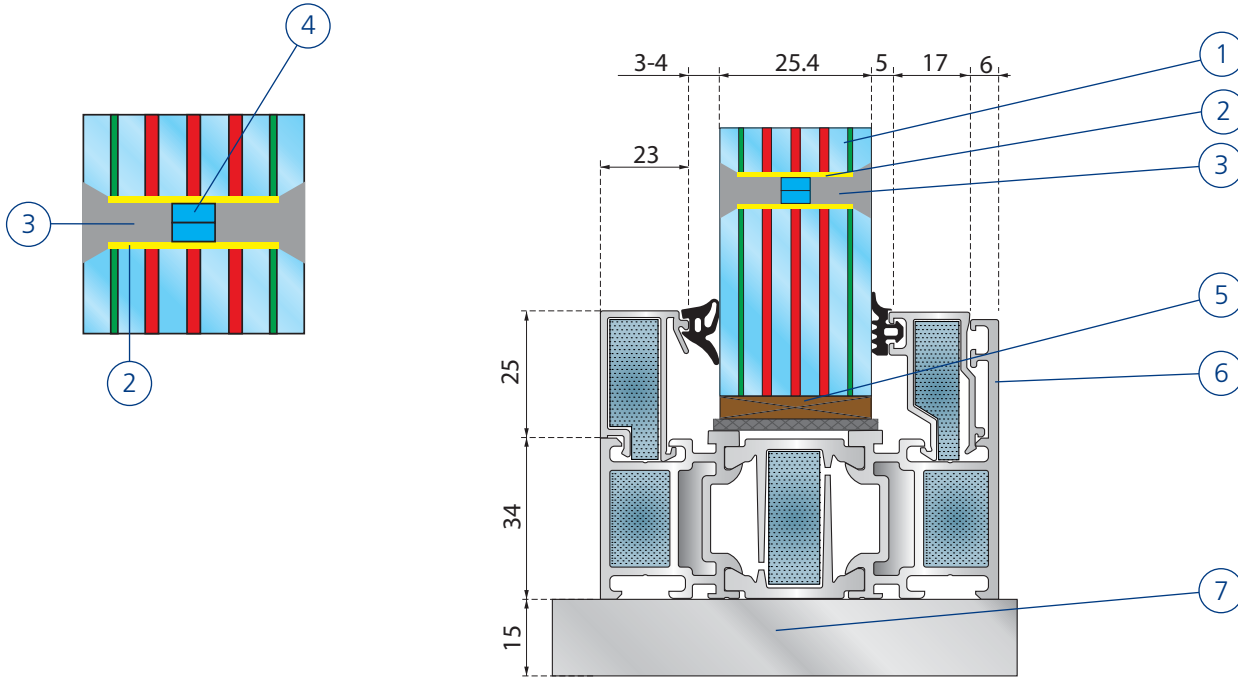
(*) For alternative systems, please consult AGC

(**) Extended application of results following EN 15254-4

PYROBEL 17N EG2 VL

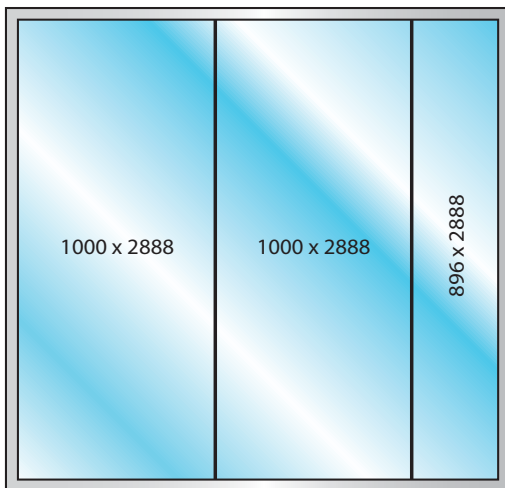
FIRE RESISTANT GLAZING EI 45 ACCORDING TO EN 13501-2

Alu frame (in mm)



REPORT N° 16931 B

Example of assembly (in mm)
Unlimited partition



REPORT N° 16931 B

- 1 Pyrobel 17N EG2 VL
- 2 ALU tape
- 3 Silicone DC Firestop 700
- 4 Tape Kerafix FXL200
- 5 Setting block Calcium Silicate
- 6 Schüco ADS 80 FR 60
- 7 Ceramic wool

All of the installation details given in the report must be respected. The only authorised modifications are those mentioned in the report.

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PYROBEL 25 VL

FIRE RESISTANT GLAZING EI 60



ACCORDING TO EN 13501-2

DESCRIPTION

Pyrobel 25 VL is a laminated glass assembled with several clear intumescent interlayers.

In the event of fire, the interlayers transform into rigid and opaque fire shields, that keep out flames and reduce heat transmission with insulation of the partitions. Pyrobel 25 VL and 25 EG VL provide fire resistance in both directions.

TECHNICAL DATA

Specification / Identification	Pyrobel 25 VL  yourglass.com	Pyrobel 25 EG VL  yourglass.com
Glazing type	Single	Single
Grade	Internal	Internal / External
Glass thickness	26.6 mm	30.4 mm
Thickness tolerance	± 2 mm	± 2 mm
Dimension tolerance	± 2 mm	± 2 mm
Weight	ca 60 kg/m ²	ca 68 kg/m ²
Minimum dimensions	No minimum	No minimum
Light properties (EN 410): τ_v / ρ_v [%]	81/7	80/7
U value (EN 673)	5.2 W/(m ² .K)	5.0 W/(m ² .K)
Impact resistance (EN 12600)	1B1	1B1
Sound reduction (EN 12758): $R_w(C, Ctr)$	40 dB (-1; -3)	43 dB (-1; -4)

NPD: No performance declared - see Glass Configurator on www.yourglass.com

CERTIFICATIONS according to EN 1364-1, EN 1634-1 & EN 13501-2

APPLICATION (*)	REPORT NUMBER	Glazing	Tested dimensions in mm l x h (**)		Results (minutes)	
			Portrait	Surface	EW	EI
Partition	13261 B	Pyrobel 25 VL	1200 x 2874	3.45 m ²	69	69
		Pyrobel 25 EG VL	1200 x 2874	2.87 m ²	67	65
	13932 B	Pyrobel 25 VL	1200 x 2831	3.40 m ²	62	62
		Pyrobel 25 EG VL	1000 x 2850	2.85 m ²	65	65
	14334 B	Pyrobel 25 EG VL	1000 x 2850	2.85 m ²	65	65
ALU – Schüco ADS 80 FR 60	FR.221-11-AUNE	Pyrobel 25 VL	1000 x 2888	2.88 m ²	63	63
Partition corners	R9405a	Pyrobel 25 EG VL	1355 x 2860	3.88 m ²	65	65

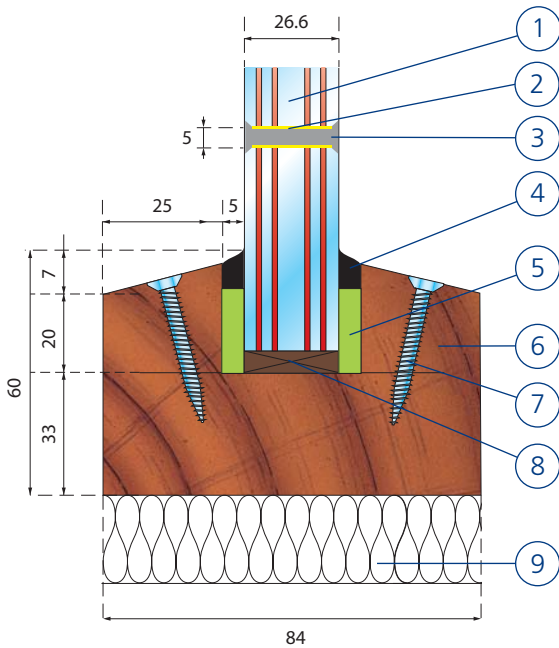
(*) For alternative systems, please consult AGC

(**) Extended application of results following EN 15254-4

PYROBEL 25 VL

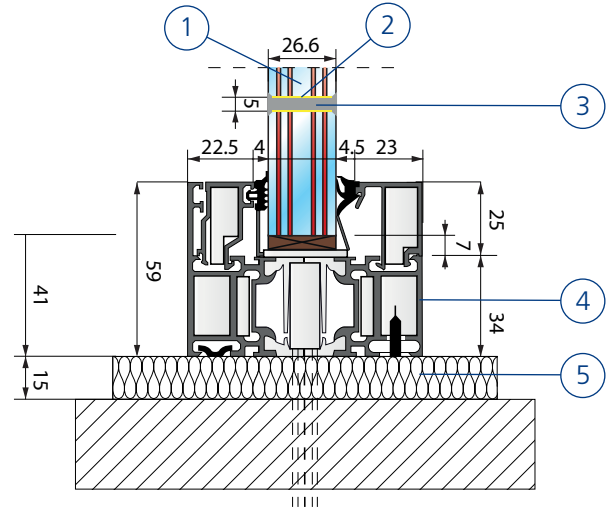
FIRE RESISTANT GLAZING EI 60 ACCORDING TO EN 13501-2

Timber frame (in mm)



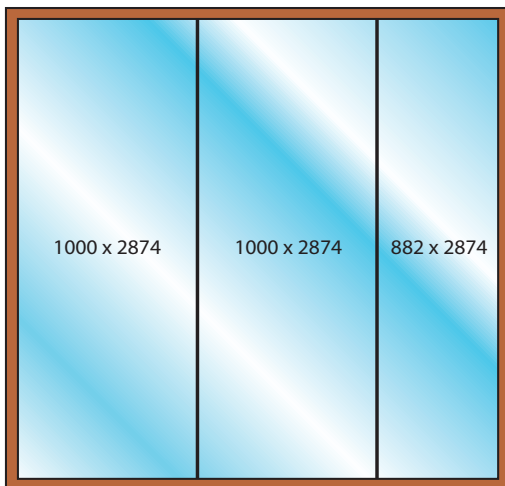
REPORT N° 13261 B

Aluminium frame (in mm)



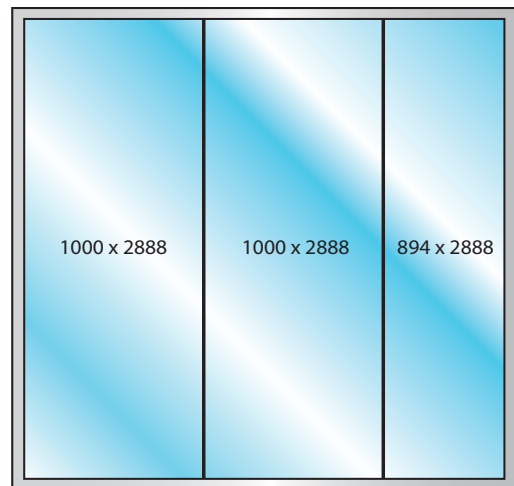
REPORT N° FR.221-11-AUNE

Example of assembly (in mm)
Unlimited partition



REPORT N° 13261 B

Example of assembly (in mm)
Unlimited partition



REPORT N° FR.221-11-AUNE

- 1 Pyrobel 25 VL
- 2 ALU tape
- 3 Silicone DC Firestop 700
- 4 Silicone DC Firestop 700
- 5 Ceramic Paper Superwool X607
- 6 Wood Meranti 527 kg/m³
- 7 Screw – steel, diameter 4 mm – length 50 mm
- 8 Setting block Promatect-H 6 mm
- 9 Ceramic wool

- 1 Pyrobel 25 VL
- 2 ALU tape
- 3 Silicone DC Firestop 700
- 4 Aluminium frame
- 5 Ceramic wool

All of the installation details given in the report must be respected. The only authorised modifications are those mentioned in the report.

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PYROBEL 30 EG2 VL

FIRE RESISTANT GLAZING EI 90

ACCORDING TO EN 13501-2

DESCRIPTION

Pyrobel 30 EG2 VL is a laminated glass assembled with several clear intumescent interlayers.

In the event of fire, the interlayers transform into rigid and opaque fire shields, that keep out flames and reduce heat transmission with insulation of the partitions. Pyrobel 30 EG2 VL provide fire resistance in both directions.

TECHNICAL DATA

Specification / Identification

Pyrobel 30 EG2 VL



yourglass.com

Glazing type	Single
Grade	Internal / External
Glass thickness	38 mm
Thickness tolerance	± 3 mm
Dimension tolerance	± 2 mm
Weight	ca 85 kg/m ²
Minimum dimensions	No minimum
Light properties (EN 410): τ_v / ρ_v [%]	80/7
U value (EN 673)	4.7 W/(m ² .K)
Impact resistance (EN 12600)	1B1
Sound reduction (EN 12758): Rw(C, Ctr)	43 dB (-1; -4)

NPD : No performance declared - see Glass Configurator on www.yourglass.com

CERTIFICATIONS according to EN 1364-1, EN 1634-1 & EN 13501-2

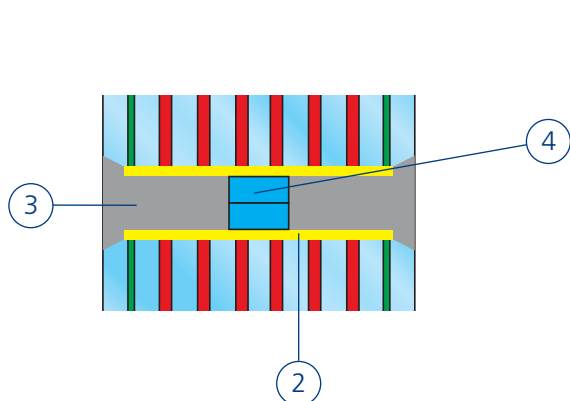
APPLICATION ^(*)		REPORT NUMBER	Glazing	Tested dimensions in mm l x h ^(**)		Results (minutes)	
				Portrait	Surface	EW	EI
Partition	Steel - Janisol C4	2015R000326	Pyrobel 30 EG2 VL	1000 x 2860	2.86 m ²	98	98

^(*) For alternative systems, please consult AGC

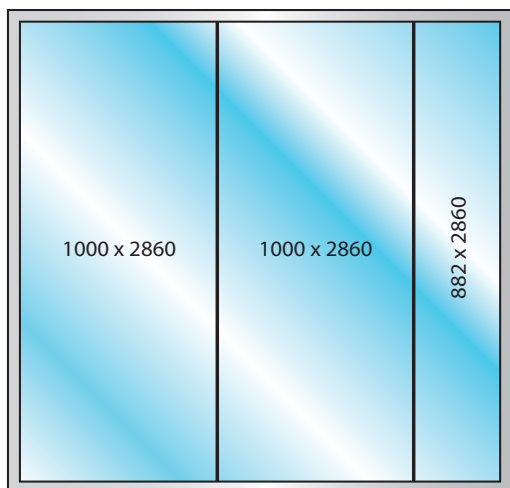
^(**) Extended application of results following EN 15254-4

PYROBEL 30 EG2 VL

FIRE RESISTANT GLAZING EI 90 ACCORDING TO EN 13501-2

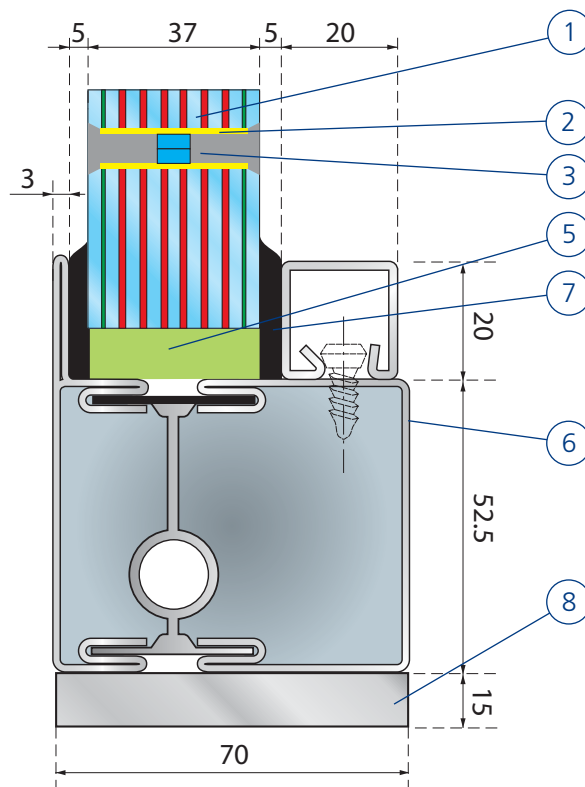


Example of assembly (in mm)
Unlimited partition



REPORT N° 2015R000326

Steel frame (in mm)



REPORT N° 2015R000326

- 1 Pyrobel 30 EG2 VL
- 2 ALU tape
- 3 Silicone DC Firestop 700
- 4 Tape Kerafix FXL 200
- 5 Setting block - timber
- 6 Jansen Janisol C4
- 7 Ceramic Paper Superwool X607
- 8 Mineral Wool

All of the installation details given in the report must be respected. The only authorised modifications are those mentioned in the report.

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PYROBEL 53N VL

FIRE RESISTANT GLAZING EI 120



ACCORDING TO EN 13501-2

DESCRIPTION

Pyrobel 53N VL is a laminated glass assembled with several clear intumescent interlayers.

In the event of fire, the interlayers transform into rigid and opaque fire shields, that keep out flames and reduce heat transmission with insulation of the partitions. Pyrobel 53N VL and 53N EG VL provide fire resistance in both directions.

TECHNICAL DATA

Specification / Identification	Pyrobel 53N VL  yourglass.com	Pyrobel 53N EG VL  yourglass.com
Glazing type	Single	Single
Grade	Internal	Internal / External
Glass thickness	52.7 mm	56.5 mm
Thickness tolerance	± 3 mm	± 3 mm
Dimension tolerance	± 2 mm	± 2 mm
Weight	ca 122 kg/m ²	ca 130 kg/m ²
Minimum dimensions	No minimum	No minimum
Light properties (EN 410): τ_v / ρ_v [%]	75/6	73/7
U value (EN 673)	4.5 W/(m ² .K)	4.4 W/(m ² .K)
Impact resistance (EN 12600)	1B1	1B1
Sound reduction (EN 12758): $R_w(C, C_{tr})$	48 dB (-2; -7)	49 dB (-2; -7)

NPD: No performance declared - see Glass Configurator on www.yourglass.com

CERTIFICATIONS according to EN 1364-1, EN 1634-1 & EN 13501-2

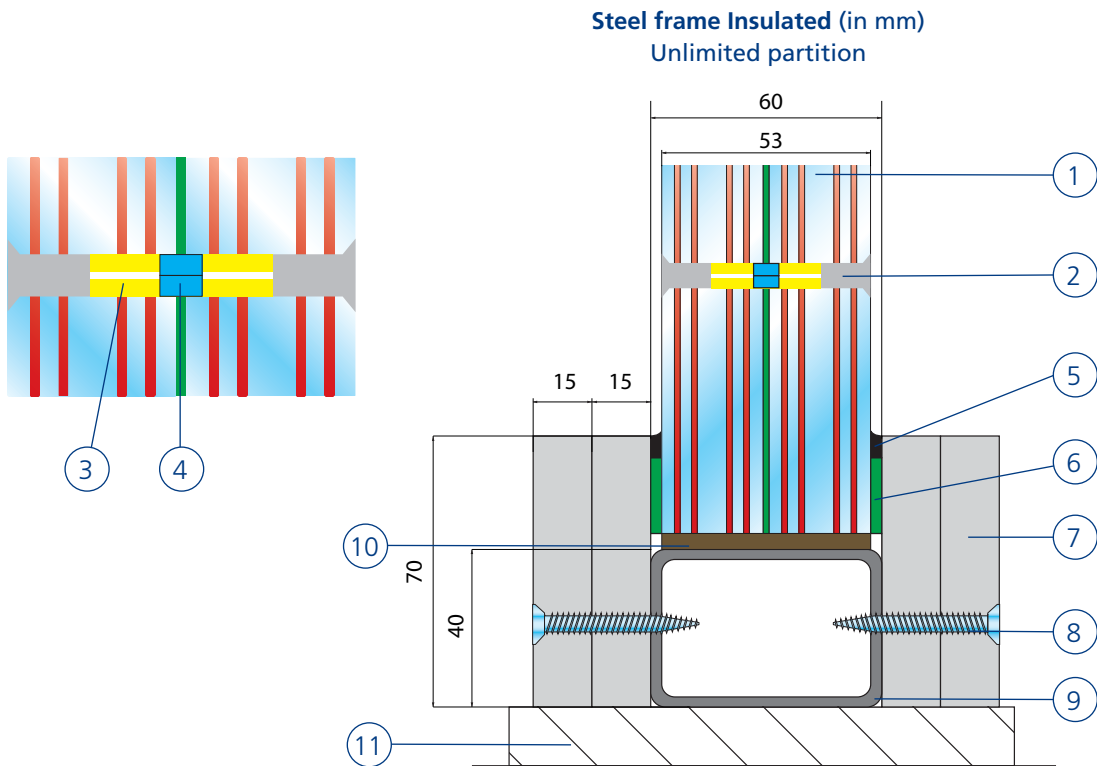
APPLICATION ^(*)		REPORT NUMBER	Glazing	Tested dimensions in mm l x h ^(**)		Results (minutes)	
				Portrait	Surface	EW	EI
Partition	Steel Insulated	CFR1205241	Pyrobel 53 N VL	1001 x 2882	2.88 m ²	127	127

^(*) For alternative systems, please consult AGC

^(**) Extended application of results following EN 15254-4

PYROBEL 53N VL

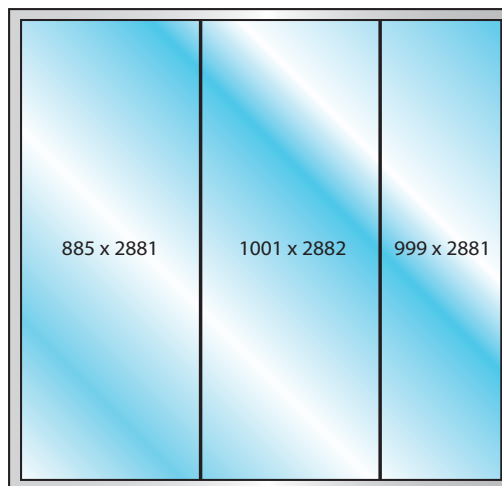
FIRE RESISTANT GLAZING EI 120 ACCORDING TO EN 13501-2



REPORT N° CFR1205241

Example of assembly (in mm)

Unlimited partition



REPORT N° CFR1205241

- 1 Pyrobel 53N VL
- 2 Silicone – Momentive Pensil 300 - grey
- 3 Tape Kerafix FXL 200
- 4 Superwool paper X607

- 5 Silicone – Momentive Pensil 300 - grey
- 6 Tape Kerafix FXL 200
- 7 Promatect H 70 x 15 mm per layer
- 8 Screws Ø 2.5 x 65 mm

- 9 Steel tube 60 x 40 x 3 mm
- 10 Setting block
- 11 Superwool X607

All of the installation details given in the report must be respected. The only authorised modifications are those mentioned in the report.

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PYROPANE 100

FIRE RESISTANT GLAZING E30
ACCORDING TO EN 13501-2

DESCRIPTION

Pyropane 100 is a clear glass which, due to its special heat treatment, is flame and gas-retardant for 30 minutes (E 30). It is mainly designed for indoor applications and provides fire resistance in both directions.

TECHNICAL DATA

Specification / Identification

Pyropane 100



yourglass.com

Glazing type	Single
Grade	Internal / External
Glass thickness	6 mm (8, 10 mm)
Thickness tolerance	± 0.2 mm
Dimension tolerance	± 2 mm
Weight	ca 15 kg/m ²
Minimum dimensions	100 x 350 mm (diam. 800 mm)
Light properties (EN 410): τ_v / ρ_v [%]	89/8
Solar factor - SF % (EN 410)	84
U value (EN 673)	5.7 W/(m ² .K)
Sound reduction (EN 12758): $R_w(C, C_{tr})$	31 (-2, -3) dB
Impact resistance (EN 12600)	1C1
Reaction to fire (EN 13501)	A1
Resistance to UV radiation	Yes
CE marking	EN 14179-2

NPD : No performance declared - see Glass Configurator on www.yourglass.com

CERTIFICATIONS according to EN 1364-1, EN 1634-1 & EN 13501-2

APPLICATION (*)		REPORT NUMBER	Glazing	Tested dimensions in mm l x h (**)			Results (minutes)	
				Portrait	Landscape	Surface	E	EW
Partition	Steel – Forster Presto 50	08-A-369	Pyropane 100	1200 x 2220	-	2.66 m ²	30	20
Doors	Steel – Forster Presto 50	08-A-370	Pyropane 100	900 x 2030	-	1.82 m ²	30	20
2 Doors		08-A-374		1085 x 2180	-	2.37 m ²	30	20

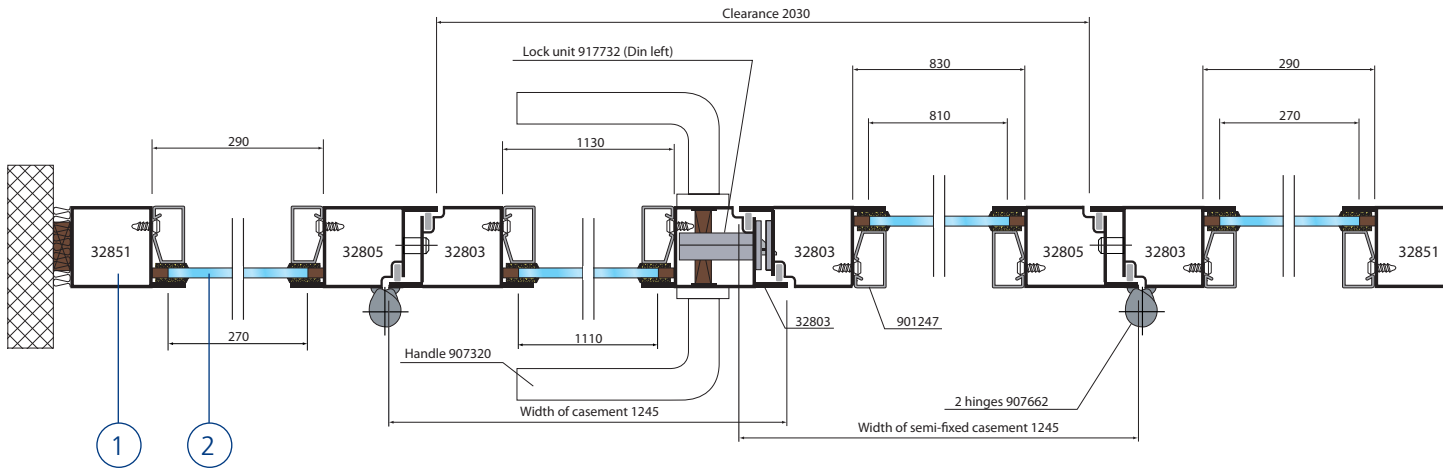
(*) For alternative systems, please consult AGC

(**) Extended application of results following EN15254-4

PYROPANE 100

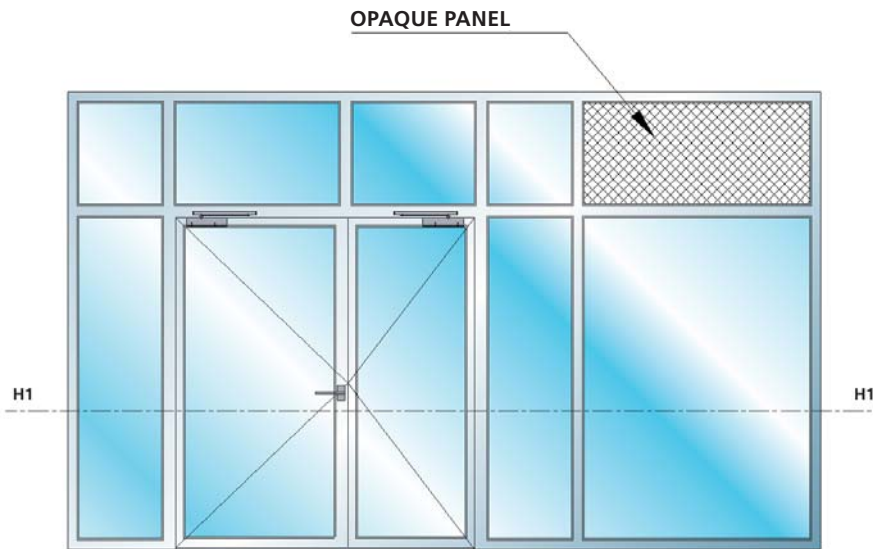
FIRE RESISTANT GLAZING E 30 ACCORDING TO EN 13501-2

Steel door set (in mm)



REPORT N° 08-A-370, 08-A-374, 08-A-381

Example of assembly (in mm)



REPORT N° 08-A-370, 08-A-374, 08-A-381

- 1 Pyropane 100
- 2 Steel – Forster Presto 50

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All of the installation details given in the report must be respected. The only authorised modifications are those mentioned in the report.

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GLASS UNLIMITED

AGC Glass Czech – plant AGC Processing Teplice, Za drahou 462, 416 74 Teplice, Czech Republic, processingteplce@eu.agc.com, Tel.: +420 417 503 201, Fax: +420 417 503 275

PYROPANE 100 SB30

SMOKE BARRIER DH 30
ACCORDING TO EN 12101-1

DESCRIPTION

Pyropane 100 SB30 or Pyropane 110 SB30 (with silk screen) is a complete system supplied with special fittings. The barrier is suspended using cross fittings, reducing the time needed for mounting on the support structure, regardless of whether it is metal or concrete.

TECHNICAL DATA

Specyfikacja / Identyfikacja

Pyropane 100 SB30



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Glazing type	Single glazing, clear or with silk-screen printing
Grade	Internal
Glass thickness	6 mm
Thickness tolerance	± 0.2 mm
Dimension tolerance	± 2 mm
Weight	ca 15 kg/m ²
Minimum dimensions	300 x 350 mm
Light properties (EN 410): τ_v / ρ_v [%]	89/8 (depending on silk-screening and cover)
Solar factor - SF % (EN 410)	84
U value (EN 673)	5.7 W/(m ² .K)
Impact resistance (EN 12600)	1C1
Reaction to fire (EN 13501)	A1
Resistance to UV radiation	Yes
CE marking	EN 12101-1 and EN 14179-2

NPD: No performance declared - see Glass Configurator on www.yourglass.com

CERTIFICATIONS according to EN 12101-1 & EN 13501-4

APPLICATION (*)		REPORT NUMBER	Glazing	Tested dimensions in mm l x h (**)			Results (minutes)
				Portrait	Landscape	Surface	DH
Smoke Barrier	Steel Fittings	09-A 230	Pyropane 100 SB30 Pyropane 110 SB30	-	1500 x 1040	1.56 m ²	30
		11-V-272	Pyropane 100 SB30	-	2500 x 1300	3.25 m ²	30

(*) For alternative systems, please consult AGC

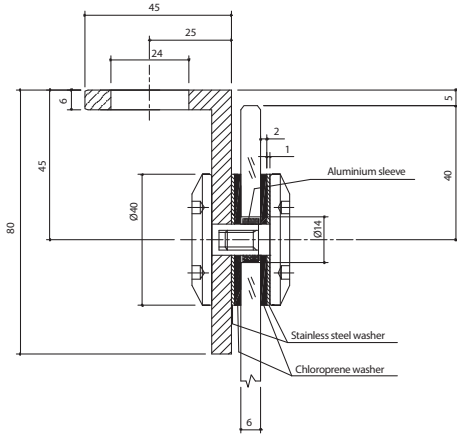
PYROPANE 100 SB30

SMOKE BARRIER DH 30 ACCORDING TO EN 12101-1

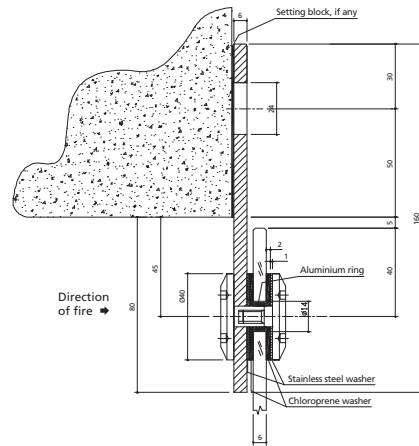
APPLICATION AND INSTALLATION

Pyropane® 100 SB30 is a complete system supplied with special fittings. The barrier is suspended using cross-fittings positioned no further than 900 mm apart. The result is a look reminiscent of point-fixed structural glazing and ease of installation. The system can be adapted to all real situations.

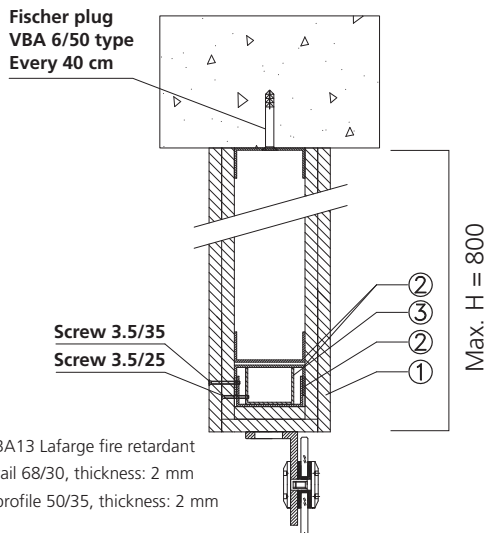
Cross section with right angle plate (in mm)



Cross section with flat plate (in mm)

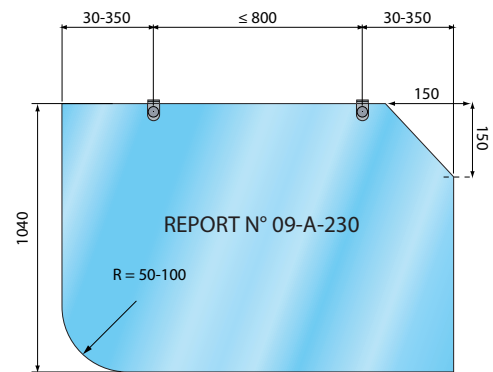


Light wall made of reinforced plasterboard



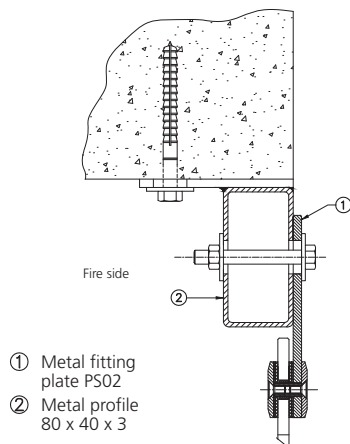
- ① BA13 Lafarge fire retardant
- ② rail 68/30, thickness: 2 mm
- ③ profile 50/35, thickness: 2 mm

Example of installation (in mm)

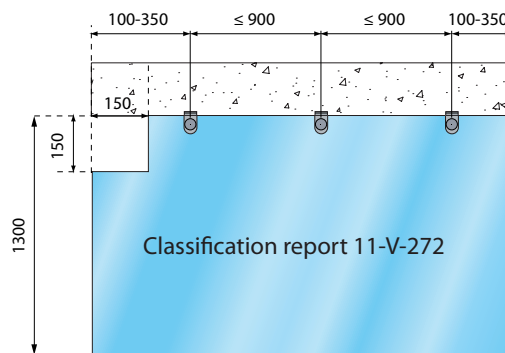


It is up to the company to comply with the installation and to check planned usage with national regulations. Rounded corners and bevelling are authorised.

Pyropane 100 SB 30 on steel profile



Example of installation (in mm)



All of the installation details given in the report must be respected. The only authorised modifications are those mentioned in the report.

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GLASS UNLIMITED

PYROPANE 211-44

THERMOBEL PYROPANE®

FIRE RESISTANT GLAZING E 30, E 60, EW 30 AND EW 60
ACCORDING TO EN 13501-2

DESCRIPTION

Pyropane 211-44 is a double glazing unit combining a coated glass that has undergone special heat treatment with a vast array of secondary glasses. Due to its properties, the unit is flame and gas retardant and limits radiation for 30 minutes (EW 30) or 60 minutes (EW 60). Pyropane 211-44 is designed for use in facades.

TECHNICAL DATA

Specification / Identification

Pyropane 211-44



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Glazing type	Double glazed
Grade	Internal / External
Fire protection	In one direction (Pyropane component opposite side to fire)
Glass thickness	27 mm for 6/15/6, air or argon space
Thickness tolerance	-0.8/+1 mm
Dimension tolerance	± 2 mm
Weight	ca 30 kg/m ²
Minimum dimensions	100 x 350 mm
Light properties (EN 410): τ_v / ρ_v [%]	73/13
Solar factor - SF % (EN 410)	44
U value (EN 673)	1.0 W/(m ² .K) with argon
Sound reduction (EN 12758): $R_w(C, C_{tr})$	32 (-2, -4) dB
Impact resistance (EN 12600)	1C1/1C2 for 6/15/6 or 1C1/1B1 for 6/12/44.2
Resistance to UV radiation	Yes
CE marking	EN 1279-5

NPD: No performance declared - see Glass Configurator on www.yourglass.com

CERTIFICATIONS according to EN 1364-1, EN 1364-3, EN 1634-1 & EN 13501-2

APPLICATION ^(*)	REPORT NUMBER	Glazing	Tested dimensions in mm l x h ^(**)			Results (minutes)		
			Portrait	Landscape	Surface	E	EW	
Partition	Timber	09-V-524	Pyropane 211-44 (6TFR/15Gas/6T)	1672 x 2640	622 x 1375	4.03 m ²	30	30
	Steel – Jansen Janisol 2	08-A-226	Pyropane 211-44 (6TFR/15Gas/6T)	1200 x 2300	1590 x 1000	2.76 m ²	93	93
	Steel – Forster Unico	09-H-258	Pyropane 211-44 (10TFR/15Gas/66.2)	1500 x 2850	-	4.34 m ²	55	55
			Pyropane 211-44 (8TFR/15Gas/8T)	1350 x 2850	-	3.91 m ²	55	55
	Steel – Forster Unico	09-V-014	Pyropane 211-44 (6TFR/15Gas/6T)	1409 x 2859	1365 x 1150	4.03 m ²	57	57
Façade	Alu – Schüco FW50 + E30	10-V-273	Pyropane 211-44 (10TFR/12Gas/6T)	1570 x 2974	-	4.67 m ²	52	52
			Pyropane 211-44 (8TFR/12Gas/66.2)	1470 x 2974	-	4.37 m ²	52	52

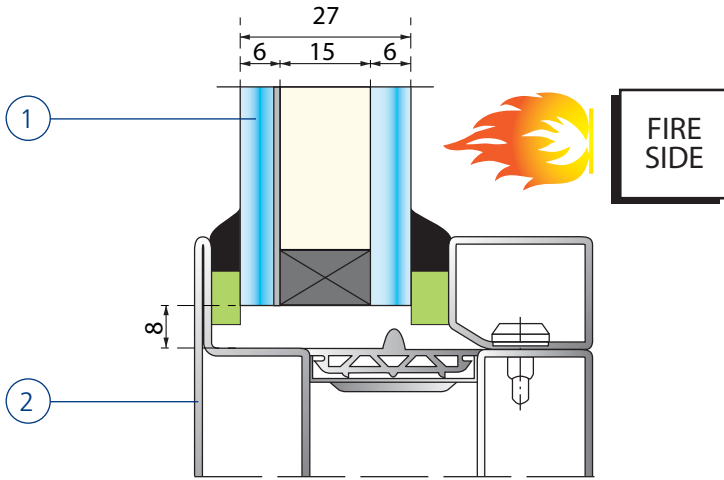
^(*) For alternative systems, please consult AGC

^(**) Extended application of results following EN 15254-4

PYROPANE 211-44

FIRE RESISTANT GLAZING E 30, E 60, EW 30 AND EW 60 ACCORDING TO EN 13501-2

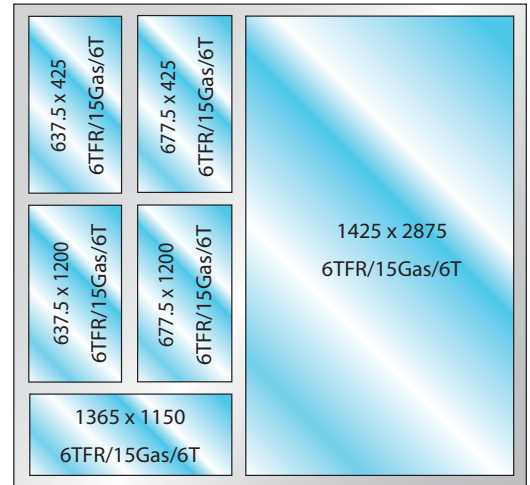
Steel frame (in mm)



REPORT N° 09-V-014

- 1 Pyropane 211-44
- 2 Steel – Forster Unico

Example of assembly (in mm)
Unlimited partition



REPORT N° 09-V-014

ASSEMBLY BASED ON DIRECTION OF FIRE

PYROPANE 211-44		PROTECTED SIDE	FIRE SIDE				
Protected side	Spacer	Fire side	PYROPANE® 6, 8 or 10 mm 1C1 classified	10 to 20 mm SPACE	EN 12600	EN 356	
					4 to 10 mm annealed Clear, extra clear, coloured	NPD	NPD
					4 to 10 mm toughened Silk-screen enamelled	1C1, 1C2 or 1C3	NPD
					Laminated, annealed or toughened in 33.x, 44.x, 55.x, 66.x (only with Pyropane 8 or 10 mm) Number of films: 2 ≤ x ≤ 8 PVB clear/coloured, acoustic, EVA	1B1 or 2B2 depending on configuration	P1A or P2A (etc.) up to P6B
					Stoprav, Sunergy, Stopsol		

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All of the installation details given in the report must be respected. The only authorised modifications are those mentioned in the report.

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GLASS UNLIMITED

PYROPANE 231-28

THERMOBEL PYROPANE®

FIRE RESISTANT GLAZING E 30, EW 30, E 60 AND EW 60
ACCORDING TO EN 13501-2

DESCRIPTION

Pyropane 231-28 is a double glazing unit combining a coated glass that has undergone special heat treatment with a vast array of secondary glasses. Due to its properties, the unit is flame and gas retardant and limits radiation for 30 minutes (EW 30) or 60 minutes (EW 60). Pyropane 231-28 is designed for use in facades.

TECHNICAL DATA

Specification / Identification

Pyropane 231-28



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Glazing type	Double glazed
Grade	Internal / External
Fire protection	In one direction (Pyropane component opposite side to fire)
Glass thickness	27 mm for 6/15/6, air or argon space
Thickness tolerance	-0.8/+1 mm
Dimension tolerance	± 2 mm
Weight	ca 30 kg/m ²
Minimum dimensions	100 x 350 mm
Light properties (EN 410): τ_v / ρ_v [%]	50/20
Solar factor - SF % (EN 410)	31
U value (EN 673)	1.0 W/(m ² .K) with argon
Sound reduction (EN 12758): $R_w(C, C_{tr})$	32 (-2, -4) dB
Impact resistance (EN 12600)	1C1/1C2 for 6/15/6 or 1C1/1B1 for 6/12/44.2
Resistance to UV radiation	Yes
CE marking	EN 1279-5

NPD: No performance declared - see Glass Configurator on www.yourglass.com

CERTIFICATIONS according to EN 1364-1, EN1364-3, EN 1634-1 & EN 13501-2

APPLICATION ^(*)		REPORT NUMBER	Glazing	Tested dimensions in mm l x h ^(**)			Results (minutes)	
				Portrait	Landscape	Surface	E	EW
Partition	Timber	09-V-524	Pyropane 231-28 (6TFR/15Gas/6T)	1520 x 2400	1300 x 1100	3.65 m ²	35	35
			Pyropane 231-28 (6TFR/12Gas/66.2)	622 x 1735	-	1.08 m ²	35	35
Façade	Steel – Jansen VISS TV	12-V-097	Pyropane 231-28 (10TFR/12Gas/6T)	1502 x 2800	-	4.21 m ²	80	76
			Pyropane 231-28 (8TFR/14Gas/6T)	-	1354 x 2800	3.79 m ²		
			Pyropane 231-28 (6TFR/16Gas/6T)	-	1502 x 506	0.76 m ²		

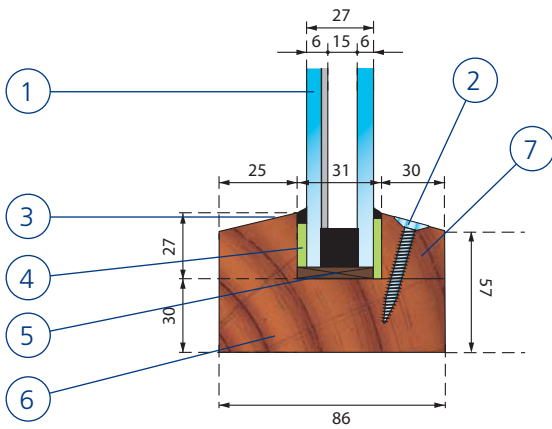
^(*) For alternative systems, please consult AGC

^(**) Extended application of results following EN 15254-4

PYROPANE 231-28

FIRE RESISTANT GLAZING E 30, EW 30, E 60 AND EW 60 ACCORDING TO EN 13501-2

Timber frame (in mm)

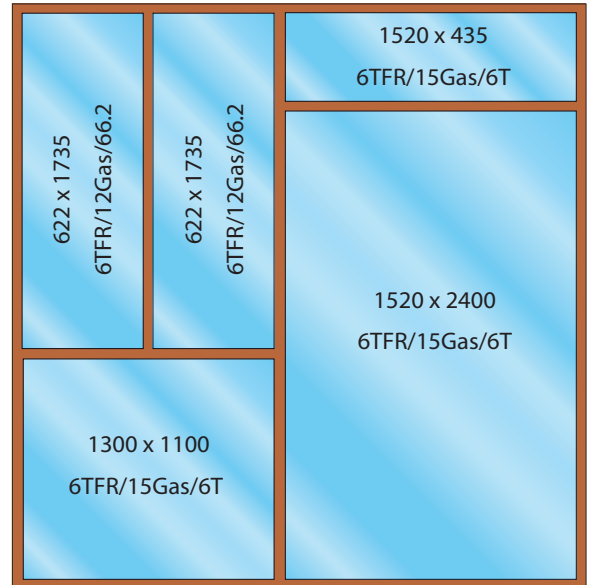


REPORT N° 09-V-524

- 1 Pyropane 231-28
- 2 Steel screw
- 3 Silicone DC Firestop 700
- 4 Intumescent tape Flexiodice SA 25 x 2 mm
- 5 Setting block Promatect 20 x 5 mm
- 6 Timber frame
- 7 Glazing bead - timber



Example of assembly (in mm)
Unlimited partition



REPORT N° 09-V-524

ASSEMBLY BASED ON DIRECTION OF FIRE

PYROPANE 231-28		PROTECTED SIDE	FIRE SIDE			
Protected side	Spacer	Fire side	10 to 20 mm SPACE	EN 12600	EN 356	
				4 to 10 mm annealed Clear, extra clear, coloured	NPD	NPD
				4 to 10 mm toughened Silk-screen enamelled	1C1, 1C2 or C3	NPD
				Laminated, annealed or toughened in 33.x, 44.x, 55.x, 66.x (only with Pyropane 8 or 10 mm) Number of films: 2 ≤ x ≤ 8 PVB clear/coloured, acoustic, EVA	1B1 or 2B2 depending on configuration	P1A or P2A (etc.) up to P6B
Stopray, Sunergy, Stopsol						

Fire Resistant Glass C+E ENG - CDT s.r.o. - 3/2016

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