

Timber guidance

The Netherlands market

Contents

1	Introduction.....	3
1.1	C 2058-3E-RA	3
1.2	2012-Efectis-R0078	3
1.3	2012-Efectis-R0079	3
1.4	B2021040501N001	3
2	Approved glazing dimensions	4
3	Approved systems.....	8
3.1	Notes on interpretation	8
3.2	EW30 Partitions	9
3.2.1	Pyroguard EW30 Impact	9
3.2.2	Pyroguard EW30 Maxi	10
3.2.3	Pyroguard 2-EW30.....	10
3.2.4	Pyroguard T-EW30/13-1 and Pyroguard T-EW30/15-1	11
3.3	EW30 Doors.....	11
3.3.1	Pyroguard EW30 Impact	11
3.3.2	Pyroguard EW30 Maxi	12
3.4	EW30 Opening windows.....	13
3.5	EW60 Partitions	14
3.5.1	Pyroguard T-EW60/24-2 SWS (aka Pyroguard T-EI30/24-2 SWS).....	14
3.5.2	Pyroguard EW60	15
3.5.3	Pyroguard 2-EW60.....	15
3.5.4	Pyroguard T-EW60/13-1 and Pyroguard T-EW30/15-1	16
3.6	EW60 Doors.....	17
3.6.1	Pyroguard T-EW60/13-1	17
3.7	EI30 Partitions	18
3.7.1	Pyroguard T-EI30/18-2.....	18
3.8	EI30 Structural Wall	19
3.8.1	Pyroguard T-EI30/24-2 SWS.....	19
3.9	EI30 Doors.....	20
3.9.1	Pyroguard T-EI30/18-2.....	20
3.10	EI60 Partitions	21
4	IGU counterpane options	22
4.1	T-gel.....	22
4.2	Pyroguard EW30, Pyroguard EW30 Maxi and Pyroguard EW60 IGUs	23
5	Special options	24
5.1	Pyroguard EW30, Pyroguard EW30 Maxi and Pyroguard EW60.....	24
5.2	Pyroguard T-gel	24
5.3	Ventilation grill	25
5.4	Glazing tape.....	25
5.5	Wet seal capping	26

6	Glazing installation	26
7	Typical construction methods.....	27
7.1	Mortise and Tenon	27
7.2	Doweling	28
8	Disclaimer.....	29

1 Introduction

The scope of the following timber assessments are presented in this document.

1.1 C 2058-3E-RA

Peutz, Netherlands was asked by Pyroguard UK Ltd to assess the possibilities of the homologation of the **Pyroguard Protect** glass range in timber partitions with pinned bead installation regarding the fire resistance with classification times of 30 and 60 minutes, for the criteria Integrity 'E', Radiation 'W' and Insulation 'I'. The assessment, ref C 2058-3E-RA, determines the field of application and is based on historical data of performed fire tests.

1.2 2012-Efectis-R0078

Efectis, Netherlands was asked by Pyroguard UK Ltd to produce an assessment report for The Netherlands market for **Pyroguard EW30 Impact** and **Pyroguard EW30 Maxi** in timber applications on the basis of NEN 6069:2005. The assessment, ref 2012-Efectis-R0078, determines the field of application and is based on historical data of performed fire tests.

1.3 2012-Efectis-R0079

Efectis, Netherlands was asked by Pyroguard UK Ltd to produce an assessment report for The Netherlands market for **Pyroguard EW60** in timber applications on the basis of NEN 6069:2005. The assessment, ref 2012-Efectis-R0079, determines the field of application and is based on historical data of performed fire tests.

1.4 B2021040501N001

DGMR was asked by Pyroguard UK Ltd to produce an assessment report for The Netherlands market for **Pyroguard Rapide** and **Pyroguard Protect** in the timber applications of the timber trade group NBvT on the basis of NEN 6069:2005. The assessment, ref B2021040501N001, determines the field of application and is based on historical data of performed fire tests. In addition, NBvT guidance allows further timber glazed constructions:

- AOK 001 bijlage 01.02 Fixed glass exterior glazing
- AOK 001 bijlage 02.02 Fixed glass interior glazing
- AOK 001 bijlage 03.02 Outward opening window
- AOK 001 bijlage 03.04 Outward opening window with sidelight(s)
- AOK 001 bijlage 04.02 Hinged window
- AOK 001 bijlage 04.04 Hinged window with sidelight(s)
- AOK 001 bijlage 05.02 Pivot sash window
- AOK 001 bijlage 05.04 Pivot sash window with sidelight(s)

For more information please contact NBvT.

2 Approved glazing dimensions

Application (system)	Class	Max glass area (m²)	Max glass width (mm)	Max glass height (mm)	Profile	Pyroguard glass	Certification	Range		
Single frame	EW30	2.42	2750	2750	Hout	EW30 Impact	2012-Efectis-R0078	Pyroguard Rapide		
		4.47		2700		EW30 Maxi				
		2.42		2750		EW30 Impact VI				
		4.47		2700		EW30 Maxi VI				
		2.22	1100	2200	Timber density: ≥580 kg/m³	EW30 Impact	CR09040			
		2.40	1200	2000	Timber: ≥640 kg/m³	EW30 Impact VI (counterpane to the fire risk side)	06-V-392	#N/A		
	EW60	1.57	780	2400	Timber	EW60	2012-Efectis-R0079			
						EW60 VI				
Opening window	EW30	2.42	2750	2750	Hout	EW30 Impact	2012-Efectis-R0078	Pyroguard Rapide		
		4.47		2700		EW30 Maxi				
		2.42		2750		EW30 Impact VI				
		4.47		2700		EW30 Maxi VI				
		0.75	866	1395	Timber: NBvT members only	T-EW30/6 VF RV	B2021040501N001	Pyroguard Firesafe		
						T-EW30/6 VF RV VI				
		2.27	1208	2070		EW30 MAXI		Pyroguard Rapide		
						EW30 MAXI VI				
						T-EW30/13-1		Pyroguard Protect		
						T-EW30/13-1 VI				
	EW60	1.57	780	2400	Timber	EW60	2012-Efectis-R0079			
						EW60 VI				
	Partition wall	EW30	4.80	1776	3242.8	European Redwood: ≥510 kg/m³	EW30 Maxi	CR11028	Pyroguard Rapide	
			2.42	2750	2750	Hout	EW30 Impact	2012-Efectis-R0078		
4.47							2700			EW30 Maxi
2.42							2750			EW30 Impact VI
4.47							2700			EW30 Maxi VI
2.00			1000	2000	Sapele density: ≥640 kg/m³	EW30 Impact	CR09081			
3.39			1540	2200		EW30 Maxi VI	CR09133			
2.00			1000	2000			CR09113			
5.70			1800	3780	Softwood density: ≥350 kg/m³	T-EW30/15-1	C2058-3E-RA-004	Pyroguard Protect		
						T-EW30/15-1 VI				
						T-EW30/15-1 VF				
3.30			1200	2750		2-EW30/7-1 VI		Pyroguard Advance		
									2.65	2500
2.00			1800	3240						
3.13			1668	2700						
1.36			2001	978					2-EW30/11-2 VI	

Application (system)	Class	Max glass area (m²)	Max glass width (mm)	Max glass height (mm)	Profile	Pyroguard glass	Certification	Range	
Partition wall	EW30	5.72	1800	3780	Softwood density: ≥430 kg/m³ (with hardwood beads)	T-EW30/13-1	EFR-24-001390 CR	Pyroguard Protect	
		0.75	866	1395	Timber: NBvT members only	T-EW30/6 VF RV	B2021040501N001	Pyroguard Firesafe	
						T-EW30/6 VF RV VI		Pyroguard Rapide	
		2.27	800	2070		EW30 Impact			
			1208			EW30 MAXI			
			800			EW30 Impact VI			
			1208			EW30 MAXI VI			
						T-EW30/13-1			
		T-EW30/13-1 VI							
		EW30/ EI15	5.30	3516		1805		Softwood density: ≥350 kg/m³	T-EW30/13-1
	4.60		2930	2600	T-EW30/13-1 VI				
	3.80		1440	3120					
	5.30		3516	1805	T-EW30/13-1 TVI				
	4.60		2930	2600					
	3.80		1440	3120					
	5.30		3516	1805					
	4.60		2930	2600					
	3.80		1440	3120					
	EW60	5.72	1800	3780	Softwood density: ≥430 kg/m³ (with hardwood beads)	T-EW60/13-1	EFR-24-001390 CR	Pyroguard Protect	
		5.70			Softwood density: ≥450 kg/m³	T-EW60/15-1	C2058-3E-RA-004		
					Softwood density: ≥450 kg/m⁴	T-EW60/15-1 VI			
					Softwood density: ≥450 kg/m⁵	T-EW60/15-1 VF			
		1.57	780	2400	Timber	EW60	2012-Efectis-R0079	Pyroguard Rapide	
		EW60 VI							
		5.72	1800	3780	Softwood density: ≥430 kg/m³ (with hardwood beads)	T-EW60/15-1	EFR-23-V-003197	Pyroguard Protect	
		EW60/ EI15	3.80	1440	3120	Softwood density: ≥450 kg/m³	T-EW60/13-1		C2058-3E-RA-004
			3.40	2808	2600		T-EW60/13-1 VI		
			3.10		1000				
	3.80		1440	3120	T-EW60/13-1 TVI				
	3.40		2808	2600					
	3.10			1000					

Application (system)	Class	Max glass area (m ²)	Max Glass width (mm)	Max Glass height (mm)	Profile	Pyroguard glass	Certification	Range
Partition wall	EI30	6.80	2310	3499	Softwood density: ≥350 kg/m ³	T-EI30/18-2	C2058-3E-RA-004	Pyroguard Protect
		5.30	2585	2916				
		3.80	3102	1782				
		6.80	2310	3499		T-EI30/18-2 VI		
		5.30	2585	2916				
		3.80	3102	1782		T-EI30/18-2 TVI		
		6.80	2310	3499				
		5.30	2585	2916				
		3.80	3102	1782				
		4.50	2310	3499				
		4.20	3102	1782		T-EI30/18-2 VF		
			2585	2916				
	EW60/ EI30	3.80	1573	3478	Softwood density: ≥450 kg/m ³	T-EI30/24-2 SWS		Pyroguard Infinity
						T-EI30/24-2 SWS VF		
		5.60	1925	2916		T-EI30/18-2		Pyroguard Protect
		4.70	2585	1485				
		3.80		1485				
		5.60	1925	2916		T-EI30/18-2 VI		
		4.70	2585	1485				
		3.80		1485				
		5.60	1925	2916		T-EI30/18-2 TVI		Pyroguard Infinity
		4.70	2585	1485				
		3.80	1573	3478		T-EI30/24-2 SWS		
						T-EI30/24-2 SWS VF		
	EI60	5.10	1600	3210	Timber density: ≥650 kg/m ³	T-EI60/25-3	EFR-21-V-003378 CR	Pyroguard Protect
		4.40	2600	1581				
		4.10	2860	1581				
		5.10	1600	3210		T-EI60/25-3 VI		
		4.40	2600	1581				
		4.10	2860	1581				
		5.10	1600	3210		T-EI60/25-3 TVI		
		4.40	2600	1581				
		4.10	2860	1581				
		5.10	1600	3210		T-EI60/25-3 VF		
		4.40	2600	1581				
		4.10	2860	1581				
		5.14	1600	3210	Timber density: ≥650 kg/m ³	T-EI60/25-3	EFR-21-V-003378 CR	
	EW90/ EI15	3.40	1320	2860	Hardwood density: ≥450 kg/m ³	T-EW90/13-1	C2058-3E-RA-004	
Single door	EW30	0.64	710	900	European Redwood: ≥510 kg/m ³	EW30 Impact	CR09134	Pyroguard Rapide

Application (system)	Class	Max glass area (m²)	Max Glass width (mm)	Max Glass height (mm)	Profile	Pyroguard glass	Certification	Range
Single door	EW30	2.42	2750	2750	Hout	EW30 Impact	2012-Efectis-R0078	Pyroguard Rapide
		4.47		2700		EW30 Maxi		
		2.42		2750		EW30 Impact VI		
		4.47		2700		EW30 Maxi VI		
	EW60	1.57	780	2400	Timber	EW60	2012-Efectis-R0079	
						EW60 VI		
	EW60/ EI30	1.57	757	2068	Softwood density: ≥503 kg/m3	T-EI30/18-2	501790	Pyroguard Protect
Double door	EW30	2.42	2750	2750	Hout	EW30 Impact	2012-Efectis-R0078	Pyroguard Rapide
		4.47		2700		EW30 Maxi		
		2.42		2750		EW30 Impact VI		
		4.47		2700		EW30 Maxi VI		
	EW60	1.57	780	2400	Timber	EW60	2012-Efectis-R0079	
						EW60 VI		
Structural wall / butt joint	EI30	5.13	1660	3946	Forster Fuego Light EI30	T-EI30/24-2 SWS VI	19/19770-972-1 CR	Pyroguard Infinity
		3.80	1573	3478	Softwood density: ≥450 kg/m3	T-EI30/24-2 SWS	C2058-3E-RA-004	
						T-EI30/24-2 SWS VF		
		4.64	1530	3030	Timber density: ≥450 kg/m3	EI30 EXT VI SWS	19-003842	
		8.18	2860	2860		EI30 INT SWS		
		4.64	1530	3030		EI30 INT VI SWS		
		5.94	1800	3924	Timber density: ≥450kg/m³	T-EI30/32-2 SWS VI	EFR-23-004231	
						T-EI30/32-2 SWS VI (counterpane to the non-fire risk side)		
						T-EI30/32-2 SWS VI (counterpane to the fire risk side)		
	EW60/ EI30	3.80	1573	3478	Softwood density: ≥450 kg/m3	T-EI30/24-2 SWS	C2058-3E-RA-004	
						T-EI30/24-2 SWS VF		
	Structural wall / butt joint (+ angle joint option)	EI30	5.42	1800	3612	Timber density: ≥450kg/m³	T-EI30/24-2 SWS	
6.20			4080		T-EI30/32-2 SWS			

3 Approved systems

3.1 Notes on interpretation

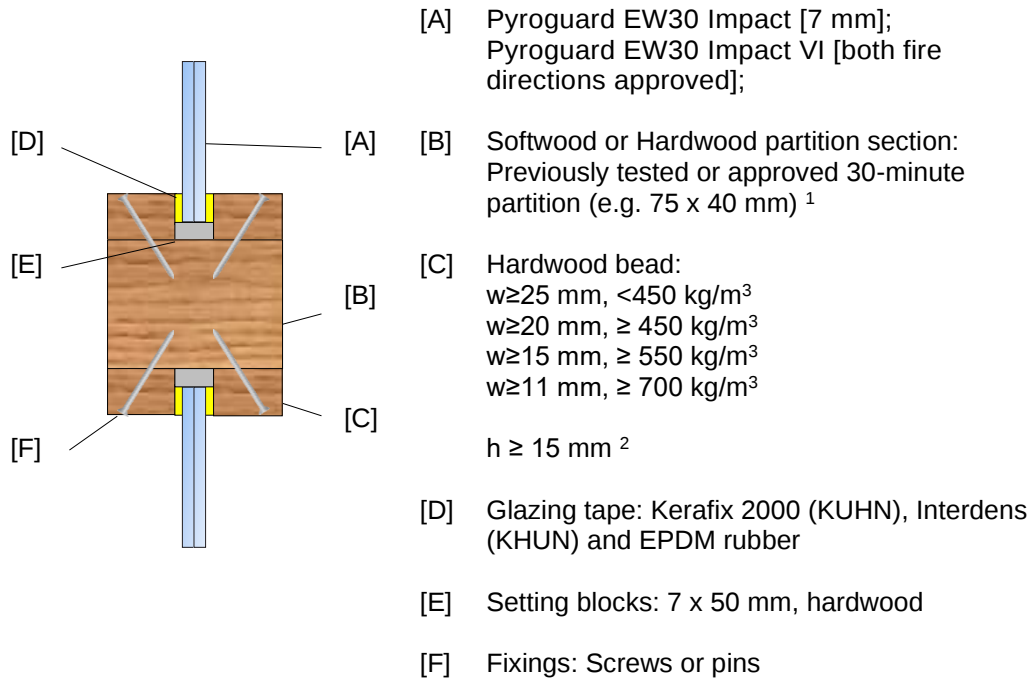
Timber is a natural product and therefore there is variation of materials. It is important to select timber suitable for the application. Check the density and type of the timber to be sure it conforms to Pyroguard's approvals.

Note these points:

- Timber sections and beads can be made larger than that approved, but not smaller
- Timber of density greater than that approved may be used; but not less
- Where softwood is approved, hardwood may also be used but not *vice-versa*
- Respect the approved glazing media, type and dimensions. Deviation from that approved is not certified
- Where pins are approved, screws may be employed. Where the screw or pins dimensions are not specified in the approval it is recommended to choose screws of dimensions 4 x 50 mm or pins of dimensions at least 1 x 50 mm.

3.2 EW30 Partitions

3.2.1 Pyroguard EW30 Impact

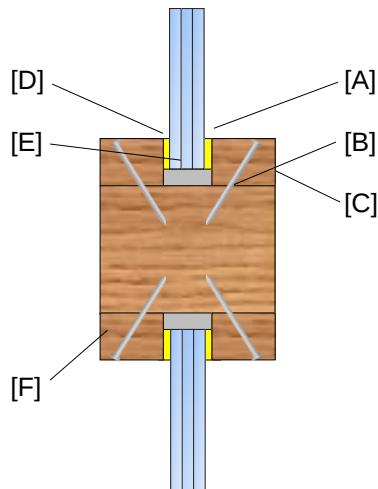


Report: 2012-Efectis-R0078

¹ Section dimensions derived from test report RF10120 according to 2012-Efectis-R0078

² Bead dimensions derived from test report RF10120 according to 2012-Efectis-R0078

3.2.2 Pyroguard EW30 Maxi

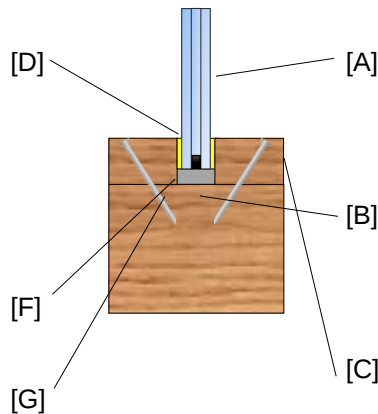


- [A] Pyroguard EW30 Maxi [11 mm];
Pyroguard EW30 Maxi VI
[both fire directions approved];
- [B] Hardwood partition section: Previously tested or
approved 30-minute partition (e.g. 75 x 40 mm) ³
- [C] Hardwood bead:
w ≥ 25 mm, < 450 kg/m³
w ≥ 20 mm, ≥ 450 kg/m³
w ≥ 15 mm, ≥ 550 kg/m³
w ≥ 11 mm, ≥ 700 kg/m³

h ≥ 15 mm ⁴
- [D] Glazing tape: Kerafix 2000 ceramic
tape 20 x 5 mm
- [E] Setting blocks: 7 x 50 mm, hardwood
- [F] Fixings: Screws or pins

Report: 2012-Efectis-R0078

3.2.3 Pyroguard 2-EW30



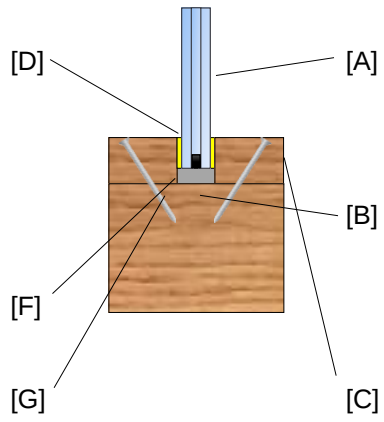
- [A] Pyroguard 2-EW30/7-1
Pyroguard 2-EW30/7-1 VI
Pyroguard 2-EW30/7-1 TVI
Pyroguard 2-EW30/9-1
Pyroguard 2-EW30/9-1 VI
Pyroguard 2-EW30/9-1 TVI
Pyroguard 2-EW30/11-2
Pyroguard 2-EW30/11-2 VI
Pyroguard 2-EW30/11-2 TVI
- [B] Softwood partition section: ≥ 37 x ≥ 70 mm, ≥ 350
kg/m³
- [C] Softwood bead: ≥ 20 x ≥ 30 mm or ≥ 17 x ≥ 35 mm,
≥ 450 kg/m³
- [D] Glazing tape: Kerafix Flexpress 10 x 2 mm or
Kerafix 2000; Gluske Fiberfrax; or Odice
Superwool ceramic tape 20 x 2-3 mm with
optional wet seal
- [E] Liner: not required
- [F] Setting blocks: Hardwood, Promatect or Supalux
- [G] Fixings: pins 1 x 50 mm or screws 4 x 40 mm
long at 40° to glass, at 200 mm centres, 50 mm
from corners

Report: C2058 Peutz

³ Section dimensions derived from test report RF10120 according to 2012-Efectis-R0078

⁴ Bead dimensions derived from test report RF10120 according to 2012-Efectis-R0078

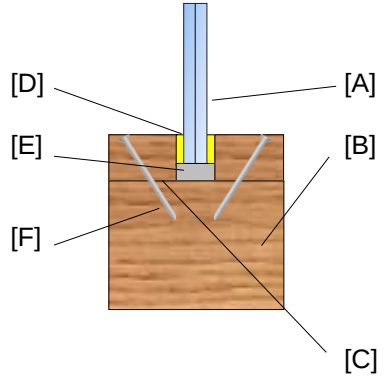
3.2.4 Pyroguard T-EW30/13-1 and Pyroguard T-EW30/15-1

- 
- [A] Pyroguard T-EW30/13-1
Pyroguard T-EW30/13-1 VI
Pyroguard T-EW30/13-1 TVI
Pyroguard T-EW30/13-1
Pyroguard T-EW30/13-1 VI
Pyroguard T-EW30/13-1 TVI
 - [B] Softwood partition section: $\geq 37 \times \geq 70 \text{ mm}$, $\geq 350 \text{ kg/m}^3$
 - [C] Softwood bead: $\geq 20 \times \geq 30 \text{ mm}$ or $\geq 17 \times \geq 35 \text{ mm}$, $\geq 450 \text{ kg/m}^3$
 - [D] Glazing tape: Kerafix Flexpress 10 x 2 mm or Kerafix 2000; Gluske Fiberfrax; or Odice Superwool ceramic tape 20 x 2-3 mm with optional wet seal
 - [E] Liner: not required
 - [F] Setting blocks: Hardwood, Promatect or Supalux
 - [G] Fixings: pins 1 x 50 mm or screws 4 x 40 mm long at 40° to glass, at 200 mm centres, 50 mm from corners

Report: C2058 Peutz

3.3 EW30 Doors

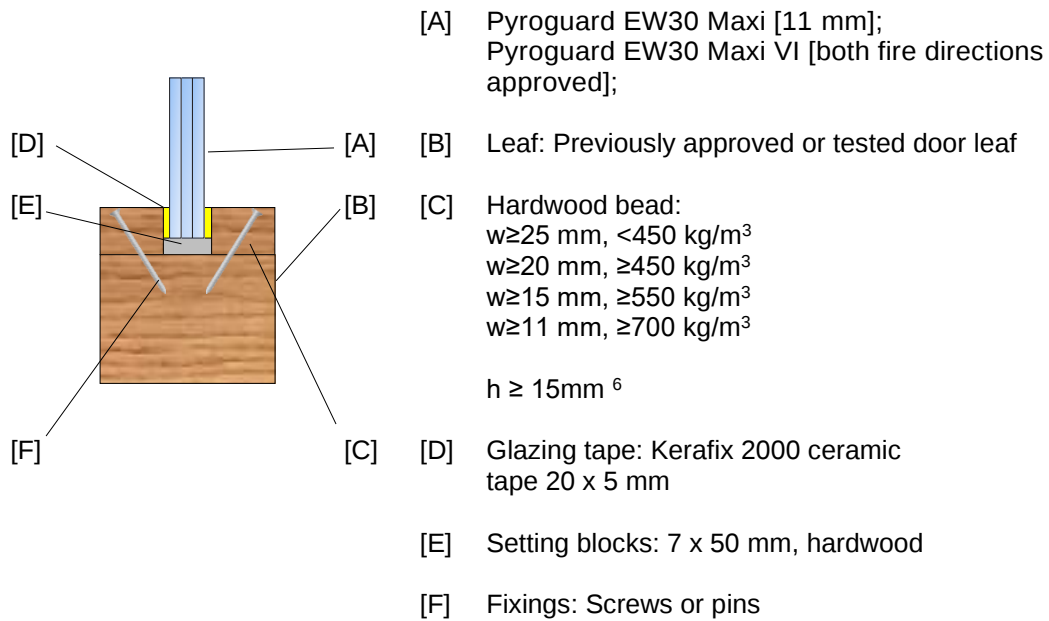
3.3.1 Pyroguard EW30 Impact

- 
- [A] Pyroguard EW30 Impact [7 mm];
Pyroguard EW30 Impact VI [both fire directions approved];
 - [B] Leaf: Previously approved or tested door leaf
 - [C] Hardwood bead:
 $w \geq 25 \text{ mm}$, $< 450 \text{ kg/m}^3$
 $w \geq 20 \text{ mm}$, $\geq 450 \text{ kg/m}^3$
 $w \geq 15 \text{ mm}$, $\geq 550 \text{ kg/m}^3$
 $w \geq 11 \text{ mm}$, $\geq 700 \text{ kg/m}^3$
 $h \geq 15 \text{ mm}^5$
 - [D] Glazing tape: Kerafix 2000 (KUHN), Interdens (KHUN) and EPDM rubber
 - [E] Setting blocks: 7 x 50 mm, hardwood
 - [F] Fixings: Screws or pins

Report: 2012-Efectis-R0078

⁵ Bead dimensions derived from test report RF10120 according to 2012-Efectis-R0078

3.3.2 Pyroguard EW30 Maxi

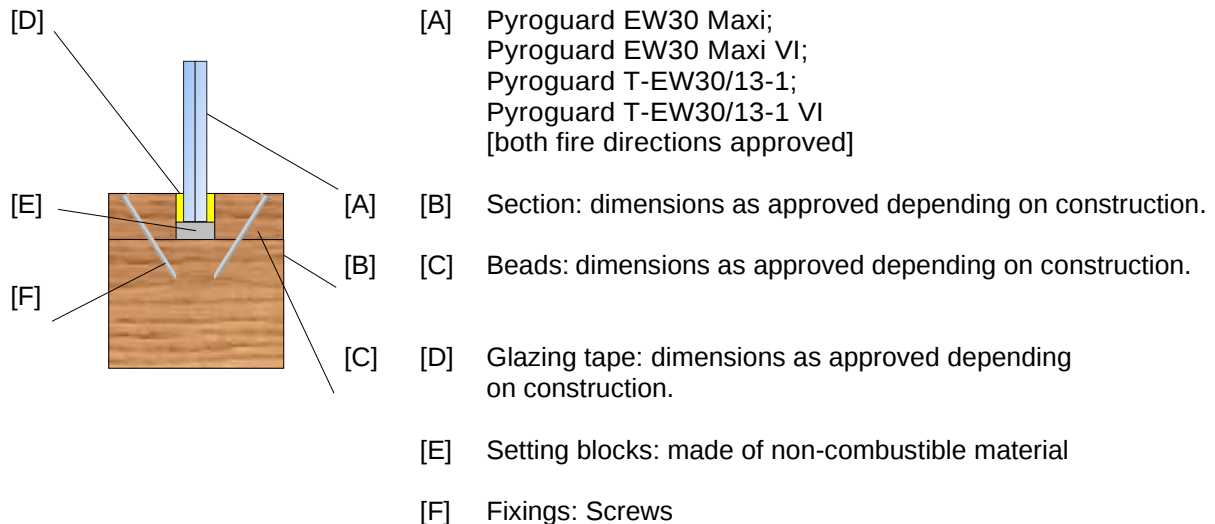


Report: 2012-Efectis-R0078

⁶ Bead dimensions derived from test report RF10120 according to 2012-Efectis-R0078

3.4 EW30 Opening windows

Numerous installations are approved by DBvT based on NEN 6069:2005 and DGMR approval. Reports are available for DBvT members only <https://www.centrumhout.nl/>



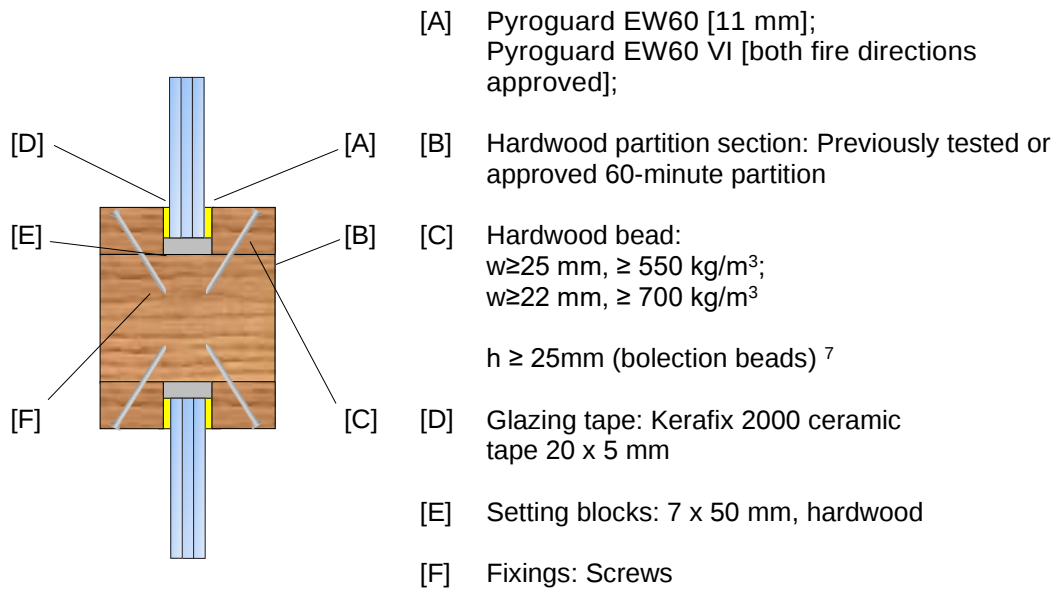
Free passage and glazing dimensions as approved depending on construction:

Approvals:

B2021040501N001

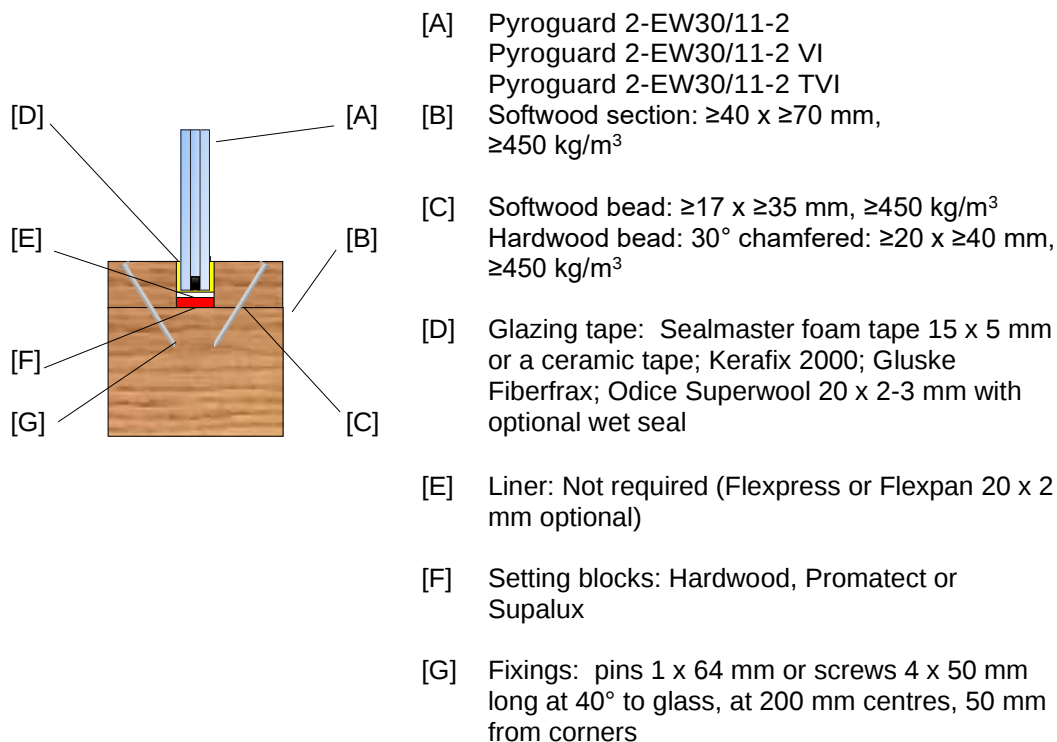
AOK 001 bijlage 03.02 Outward opening window
AOK 001 bijlage 03.04 Outward opening window with
sidelight(s)
AOK 001 bijlage 04.02 Hinged window
AOK 001 bijlage 04.04 Hinged window with sidelight(s)
AOK 001 bijlage 05.02 Pivot sash window
AOK 001 bijlage 05.04 Pivot sash window with sidelight(s)

3.5.2 Pyroguard EW60



Report: 2012-Efectis-R0079

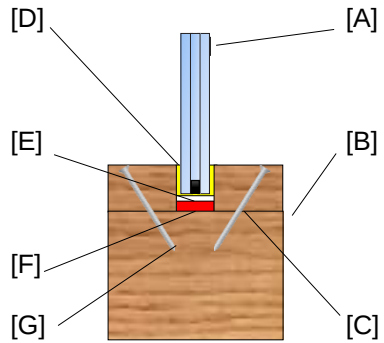
3.5.3 Pyroguard 2-EW60



Report: C2058 Peutz

⁷ Bead dimensions derived from 07-V-203 according to allowance in 2012-Efectis-R0079

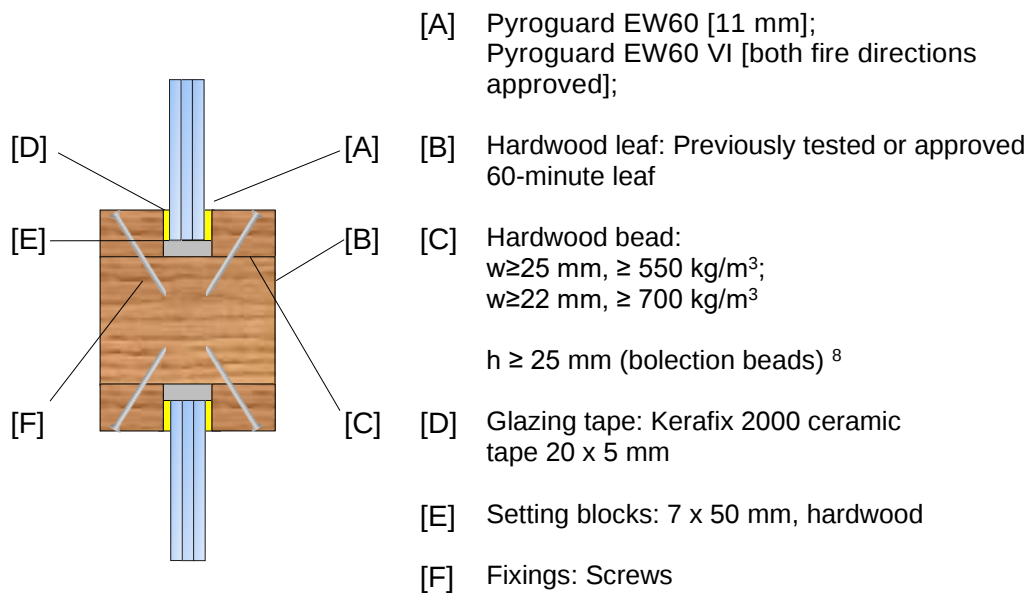
3.5.4 Pyroguard T-EW60/13-1 and Pyroguard T-EW30/15-1

- 
- [A] Pyroguard T-EW60/13-1
Pyroguard T-EW60/13-1 VI
Pyroguard T-EW60/13-1 TVI
Pyroguard T-EW60/15-1
Pyroguard T-EW60/15-1 VI
Pyroguard T-EW60/15-1 TVI
 - [B] Softwood section: $\geq 40 \times \geq 70$ mm,
 $\geq 450 \text{ kg/m}^3$
 - [C] Softwood bead: $\geq 17 \times \geq 35$ mm, $\geq 450 \text{ kg/m}^3$
Hardwood bead: 30° chamfered: $\geq 20 \times \geq 40$ mm,
 $\geq 450 \text{ kg/m}^3$
 - [D] Glazing tape: Sealmaster foam tape 15 x 5 mm
or a ceramic tape; Kerafix 2000; Gluske
Fiberfrax; Odice Superwool 20 x 2-3 mm with
optional wet seal
 - [E] Liner: Not required (Flexpress or Flexpan 20 x 2
mm optional)
 - [F] Setting blocks: Hardwood, Promatect or
Supalux
 - [G] Fixings: pins 1 x 64 mm or screws 4 x 50 mm
long at 40° to glass, at 200 mm centres, 50 mm
from corners

Report: C2058 Peutz

3.6 EW60 Doors

3.6.1 Pyroguard T-EW60/13-1

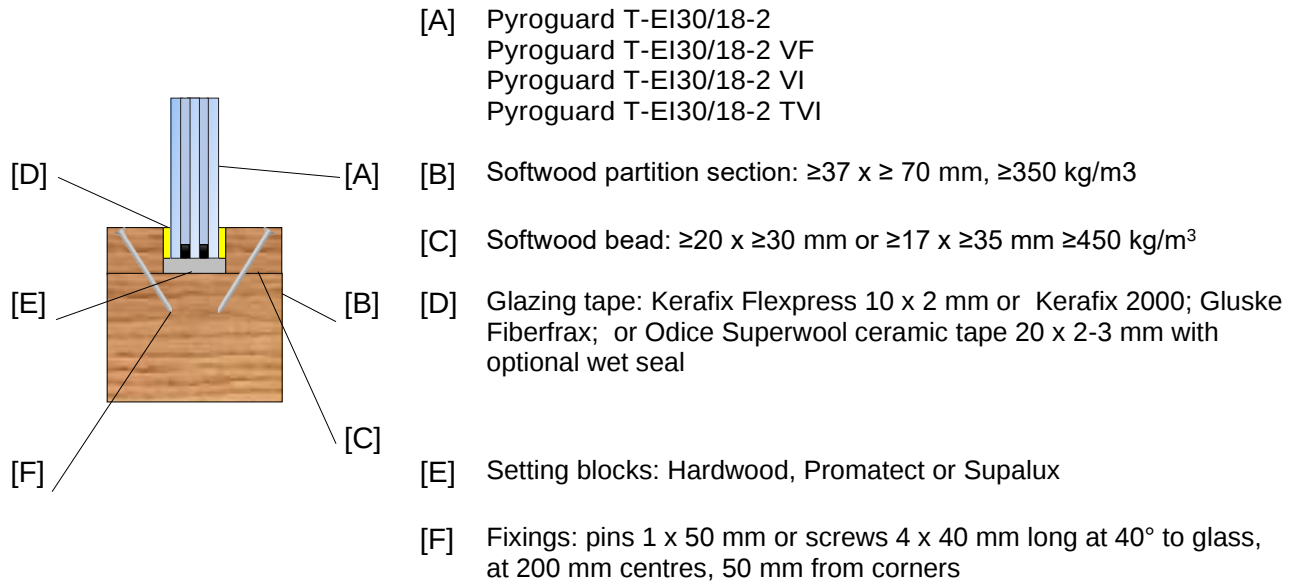


Report: 2012-Efectis-R0079

⁸ Bead dimensions derived from 07-V-203 according to allowance in 2012-Efectis-R0079

3.7 EI30 Partitions

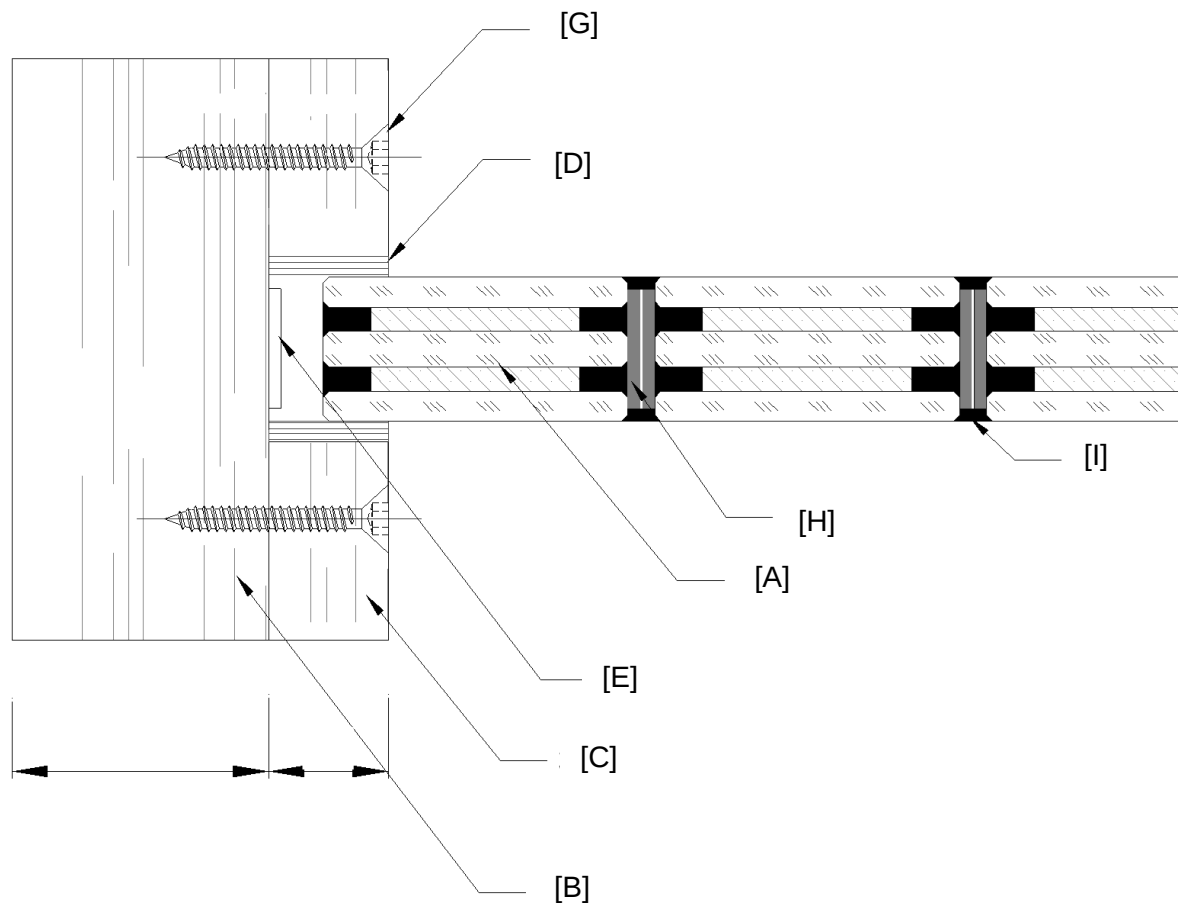
3.7.1 Pyroguard T-EI30/18-2



Report: C2058 Peutz

3.8 EI30 Structural Wall

3.8.1 Pyroguard T-EI30/24-2 SWS

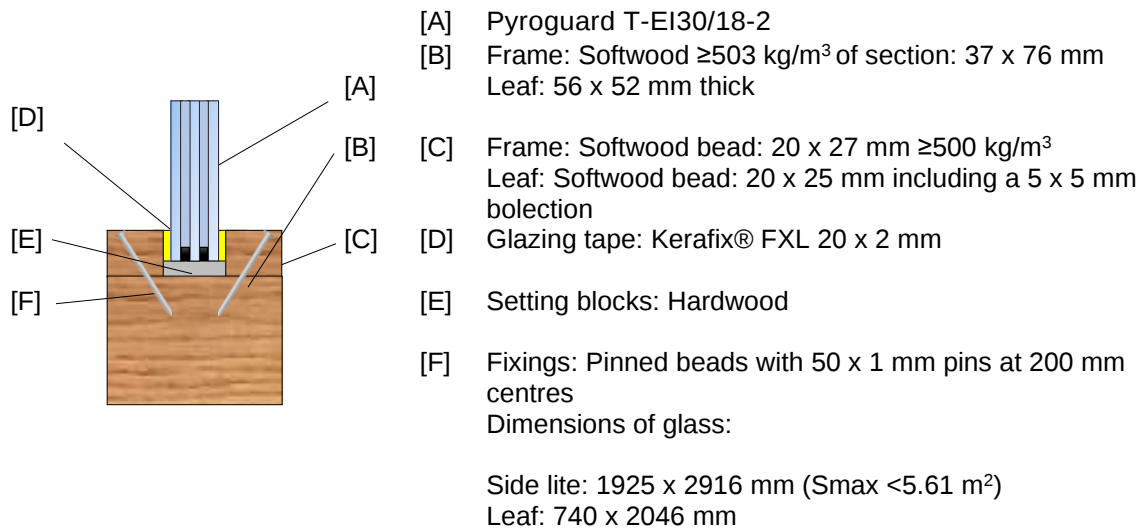


- [A] Pyroguard T-EI30/24-2 SWS;
Pyroguard T-EI30/24-2 SWS VF
- [B] Section: softwood $\geq 37 \times \geq 70 \text{ mm}$, $\geq 350 \text{ kg/m}^3$
- [C] Beads: softwood $\geq 20 \times \geq 30 \text{ mm}$ or $\geq 17 \times \geq 35 \text{ mm}$ $\geq 450 \text{ kg/m}^3$
- [D] Glazing media: Kerafix Flexpress 10 x 2 mm, Kerafix 2000, Gluske Fiberfrax or Odice Superwool ceramic tape 20 x 2-3 mm with optional wet seal
- [E] Liner: optional
- [F] Setting blocks (not shown): Hardwood, Promatect or Supalux
- [G] Fixings: Fixings: pins 1 x 50 mm or screws 4 x 40 mm long at 40° to glass, at 200 mm centres, 50 mm from corners
- [H] Glass-glass joint intumescent: Two layers of 20 x 2 Palusol
- [I] Glass-glass joint silicone: Dowsil 895

Report: C2058 Peutz

3.9 EI30 Doors

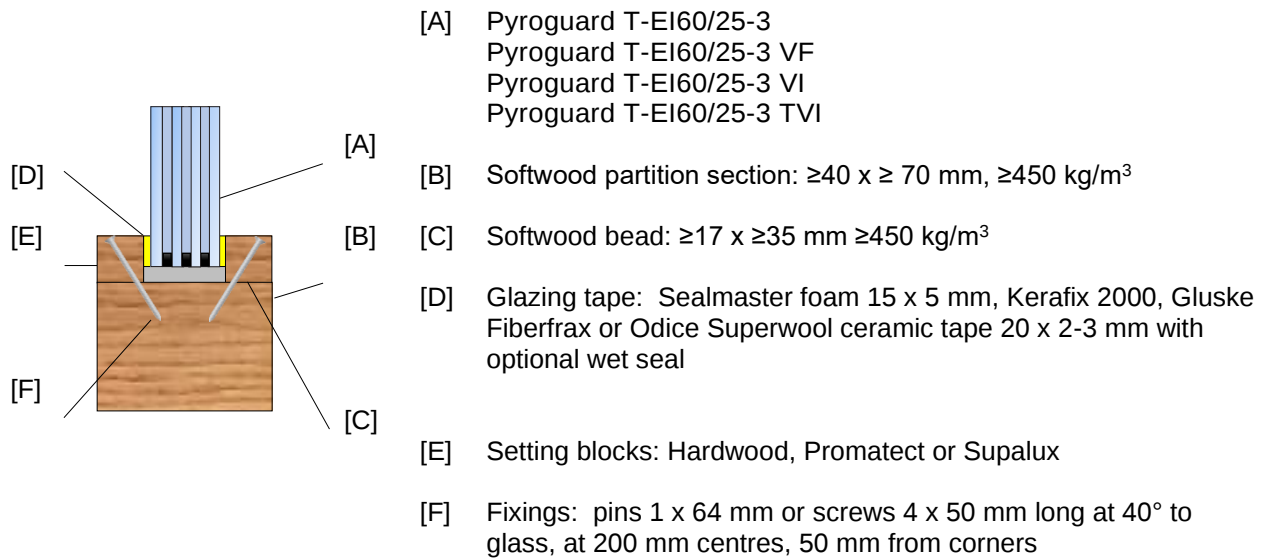
3.9.1 Pyroguard T-EI30/18-2



Free passage: 950 x 2356 mm

For full leaf and frame construction consult test report:
 Warringtonfire 501790

3.10 EI60 Partitions



Report: C2058 Peutz

4 IGU counterpane options

IGUs containing Pyroguard glasses with reactive interlayers should always be glazed with the fire rated glass orientated to the internal side of the building with a low E or solar control coating in position 2.

The impact on the fire rated glass should be considered when selecting counterpanes and glazing effects. The approvals in this document all approve performance of IGUs in both fire directions $i \rightarrow o$ and $o \rightarrow i$, however there are some limitations on the choice of counterpane.

4.1 T-gel

The following IGU options are allowed according to C2058 Peutz.

	Both fire directions	Tough, Float, Solar, Low E counterpanes	Laminated counterpanes	Spacer	The spacer bar may be included as a crucifix design
T-EW30/13-1 VI	Y	Y Coated glass OK but no printed or coloured counterpane	N	6-20 mm Steel	Y
T-EW60/13-1 VI	Y	Y Coated glass OK but no printed or coloured counterpane	N	6-20 mm Steel	Y
T-EI30/18-2 VI	Y	Y Coated glass OK but no printed or coloured counterpane	Y Max 8 foils if on fire side Max 8 foils if on non-fire side	6-20 mm Steel	Y
T-EI60/25-3 VI	Y	Y Coated glass OK but no printed or coloured counterpane	Y Max 8 foils if on fire side Max 8 foils if on non-fire side	6-20 mm Steel	Y

4.2 Pyroguard EW30, Pyroguard EW30 Maxi and Pyroguard EW60 IGUs

The following IGU options are allowed according to 2012-Efectis-R0078 and 2012-Efectis-R0079

	Both fire directions	Tough, Float, Solar, Low E counterpanes	Laminated counterpanes	Spacer	The spacer bar may be included as a crucifix design
Pyroguard EW30 VI	Y	Y max 6 mm	Y max 2 foils	Alu, Steel 6-15 mm	Y
Pyroguard EW30 Maxi VI	Y				Y
Pyroguard EW60 VI	Y	Y max 10 mm	Y max 10 mm	Steel	Y

5 Special options

5.1 Pyroguard EW30, Pyroguard EW30 Maxi and Pyroguard EW60

Special options as approved in 2012-Efectis-R0078 and 2012-Efectis-R0079. The following options are allowed.

	Film	'Monument' glass	Blinds	Leading	Decorative beads
Pyroguard EW30	Y on the directly exposed (fire) side, it is allowed to apply any film with a maximum thickness of 1mm. e.g., 3M Ultra 400 Clear, or Llumar Window Film SCL SR PS4	Y	Y	Y maximum width of 12 mm and a maximum thickness of 3 mm. The lead lines may be installed on the directly exposed side and/or the not-directly exposed side.	Y with an adhesive which melts at a temperature of approx. 80 – 100 °C. The decorative beads may be installed on the directly exposed side and/or the not-directly exposed side.
Pyroguard EW30 Maxi		Y	Y		
Pyroguard EW60					

5.2 Pyroguard T-gel

Special options as approved in C2058 Peutz

	Thicker versions	VF	Burglar resistant IGU	Blinds	Georgian Bars
T-EW30/13-1	T-EW30/15-1 T-EW30/19-1	N	N	Y ≤2285x 1585 mm	Y ≤2514x1744 mm, Smax 3,9 m²
T-EW60/13-1	T-EW30/15-1 T-EW30/19-1	N	N	N	
T-EI30/18-2	T-EI30/20-2 T-EI30/21-2 T-EI30/24-2	Y ≤0,76 mm	Y counterpane, up to P6B: ≤4 PVB layers if counterpane on the unexposed side; ≤8 PVB layers if counterpane on the exposed side		
T-EI60/25-3	T-EI60/25-3 T-EI60/27-3 T-EI60/29-3 T-EI60/33-3			Y ≤2600x 1437 mm"	Y ≤2860x1581 mm, Smax 4,1 m²

5.3 Ventilation grill

The installation of the additional ventilation grill type Firemax ZR EW30 (DUCO) on top of the glass units is approved in C2058 Peutz. Please consult the manufacturer for installation instructions and system design.

5.4 Glazing tape

C2058 Peutz approves the following glazing tape options for timber partitions in addition to that described in the document earlier:

Duration	Rebate	Glazing
30 mins	-no tape in the rebate;	Gluske Flexpress 100; 10 x 1,5 mm;
		Kerafix Flexpan 200; 20 x 2 mm.
		Kerafix Flexpress 100; 10 x 2 mm;
		Gluske Fiberfrax; 15 x 3 mm;
		Odice Superwool; 20 x 3 mm;
		Kerafix 2000 classic; 20 x 2 mm
		Kerafix 2000 K-tape; 15 x 3 mm,
		No tape in the rebate
		High or medium pressure forming intumescent tape.
		Any low pressure forming intumescent glazing tape or a ceramic tape in between the glazing beads and glass
60 mins	It is allowed for 60 minutes applications to apply around the perimeter of the glass or in the rebate of the frame either: -no tape in the rebate; -high or medium pressure forming intumescent tape.	Change of manufacturer for identical composition tapes listed is possible
		Gluske Fiberfrax; 15 x 3 mm
		Intumescent foam sealmaster; 15 x 5 mm.
		Kerafix 2000 classic; 20 x 2 mm
		Kerafix 2000 classic; 20 x 2 mm,
		Kerafix 2000 K-tape; 15 x 3 mm,
		Flexilodice BS; 13 x 6 mm.
		It is allowed for 60 minutes applications to apply around the perimeter of the glass or in the rebate of the frame either: -no tape in the rebate; -high or medium pressure forming intumescent tape.
		-any low pressure forming intumescent glazing tape or a ceramic tape in between the glazing beads and glass can be used, without a detrimental.
		Change of manufacturer for identical composition tapes listed is possible

5.5 Wet seal capping

The use of the following paintable MS Polymer sealants are approved as wet seal capping for use between the bead and glazing in C2058 Peutz for EW30, EW60, EI30 and EI60 applications.

MS Polymer: Hybriseal 2PS (Zwaluw (Den Braven))
MSP-Oneseal (Bloem)

Use of Gluske Kerafix Silicone is approved for EW30, EW60, EI30 and EI60 applications.

Use of Dowsil 895 as a capping is restricted to EI applications, it is not paintable.

6 Glazing installation

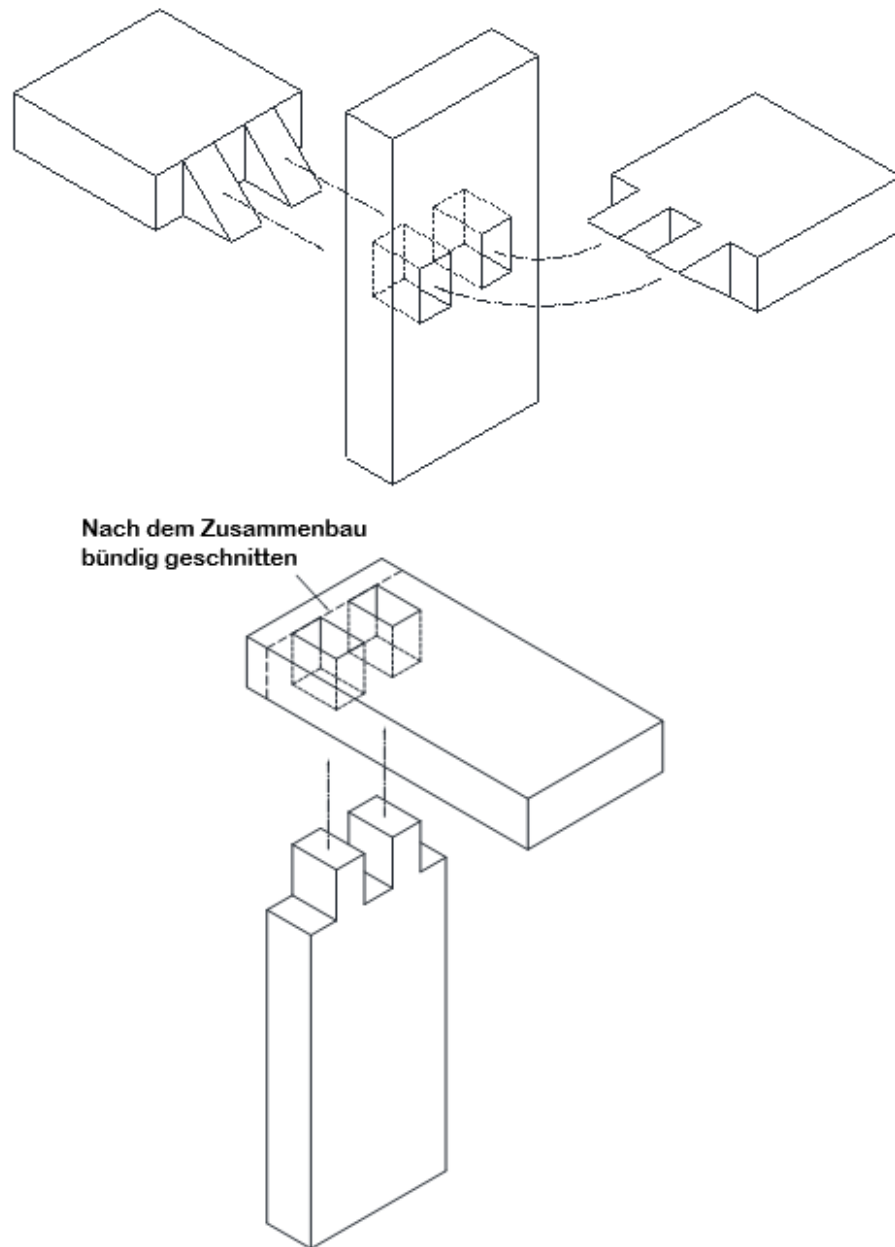
Unless stated otherwise hardwood or non-combustible setting blocks (Vermiculite, Promatect H, Supalux, etc...) should be used to position the glass in the aperture in order to give sufficient edge cover, to ensure room for thermal expansion, good fire performance, stable positioning, elevation of the glass in the rebate and to hide any edge sealant.

In timber doors, glasses are often glazed heel-toe with 4 setting blocks at a diagonal to ensure that the glass does not move.

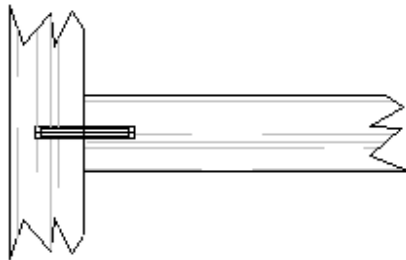
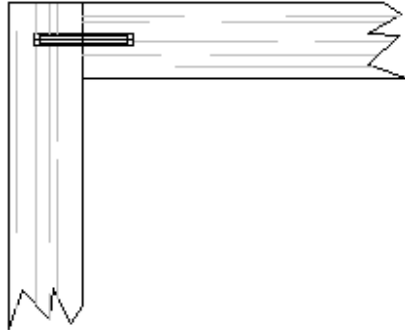
Range	Type	Edge cover*
VI, TVI (IGU, TGU)		≥13 mm
Pyroguard Protect	Toughened glass-nanocomposite gel	≥13 mm
Pyroguard Rapide	Cuttable resin	≥10 mm
*please request specific guidance when planning testing		

7 Typical construction methods

7.1 Mortise and Tenon



7.2 Doweling



8 Disclaimer

Pyroguard's Technical brochure summarises the approved glazing, glazing dimensions and approved framing system/glazing assembly. All dimensions are given in millimetres (mm) unless otherwise stated. All glass dimensions are given width first and height second. All glass sizes are maximum allowable dimensions and either/both dimensions may be reduced but not increased. Where a 'max area' is shown the glass size may be taken to the maximum dimension in either width or height as long as the size used for the second dimension does not take it above the maximum area allowed. Where no maximum area is shown then both dimensions may be taken to the maximum allowed.

To fully comply with the approval, the original document referenced should be studied. All components of the glazing assemblies installed must be as described in the original test reports, classification reports, national approvals, global assessments, or other certification. If there is an option given in the assembly drawing for any of the components used in the glazing assembly then only the options given can be used.

Pyroguard's Technical brochure is provided for information purposes only. The information contained in this document is offered for assistance in the applications of Pyroguard UK Ltd.'s products. Pyroguard UK Ltd may change the contents hereof without notice. The document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. Pyroguard UK Ltd specifically disclaims any liability with respect to this document and no contractual obligations are formed either directly or indirectly by this document. The technologies, functionality, services, and processes described herein are subject to change without notice. Pyroguard's Technical brochure is only valid for one year after publication.

Please contact your Pyroguard representative to receive the latest edition of the Technical brochure.



Pyroguard UK Ltd

Headquarters - International House
Millfield Lane - Haydock - St. Helens
Merseyside - WA11 9GA - United Kingdom

T: +44 (0) 1942 710 720

E: info@pyroguard.eu

www.pyroguard.eu

Pyroguard France SARL - Parc d'activités communautaire n°1

145 rue des Roseaux - 57455 Seingbouse - France

T: +33 (0)3 87 00 28 15 **F:** +33 (0)3 87 00 28 11 **E:** info.france@pyroguard.eu

Pyroguard Netherlands B.V. - ESP 260 C - 5633

AC Eindhoven - The Netherlands

T: +31 (0) 40 2888 525 **E:** info.nl@pyroguard.eu

 twitter.com/pyroguard

 linkedin.com/company/pyroguard

 facebook.com/pyroguarduk

 instagram.com/pyroguard

 [Pyroguard](https://www.youtube.com/Pyroguard)