

Pilkington **Planar**TM System Information

Single Pilkington **Planar**TM Laminated Safety Glass



Single Pilkington **Planar**TM Laminated Safety Glass

Performance of typical combinations with clear interlayer

Outer Pilkington T glass Plus Leaf	Inner Heat Strengthened Leaf	Light Transmittance LT	Light Reflectance LR	Total Solar Radiant Heat Transmittance	Total Shading Coefficient	U Value (W/m ² K)	R _w Value (dB)
Pilkington Optifloat TM Clear	Pilkington Optifloat TM Clear						
10mm	4mm	0.85	0.08	0.69	0.79	5.4	39
12mm	4mm	0.84	0.08	0.68	0.78	5.4	40
10mm	6mm	0.84	0.08	0.68	0.78	5.4	40
12mm	6mm	0.84	0.08	0.66	0.76	5.3	41
Pilkington Optiwhite TM	Pilkington Optiwhite TM						
10mm	4mm	0.90	0.08	0.82	0.94	5.4	39
12mm	4mm	0.90	0.08	0.81	0.93	5.4	40
10mm	6mm	0.90	0.08	0.81	0.93	5.4	40
12mm	6mm	0.90	0.08	0.81	0.93	5.3	41

Determined in accordance with EN 410 and EN 673

Single Pilkington **Planar**TM Laminated Safety Glass types

Glass Type	Colour	4mm	6mm	10mm	12mm	15mm	19mm	Notes
Pilkington Optifloat TM	Clear	✓	✓	✓	✓	✓	✓	
Pilkington Optifloat TM	Grey	✓	✓	✓				
	Bronze	✓	✓	✓				
	Green	✓	✓	✓				
Pilkington Optiwhite TM		✓	✓	✓	✓	✓		
Pilkington Arctic Blue TM	Blue	✓	✓	✓				
Pilkington Decorative Glass Screen Printed		✓	✓	✓	✓	✓	✓	Maximum screened area 2000 x 3600mm (See enclosed data sheet for further details)

Notes

All 4 or 6mm glasses are heat strengthened.

A special acoustic laminate interlayer can be used to give excellent noise reduction performance.

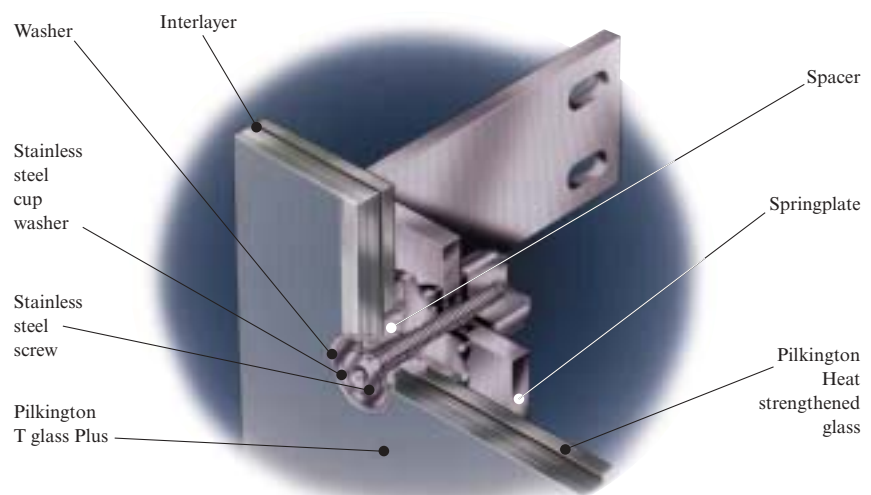
Special UV laminate interlayers are also available to provide exceptional UV protection.

Silicone perimeter seals must be compatible with Pilkington Laminated Safety Glass.

A wide range of glass combinations and a choice of clear, translucent and coloured interlayers are available with laminated glasses. Please refer to Pilkington Architectural for advice.

In line with regulations applicable in many European countries, Pilkington recommend the use of laminated glass in overhead or sloping overhead glazing.

902 Fitting to Single Pilkington **Planar**TM Laminated Safety Glass



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Specification – Single Pilkington **Planar**[™] Laminated Safety Glass

Composition

Thickest glass will be to single Pilkington **Planar**[™] standard and reference should be made to single Pilkington **Planar**[™] specification.

Indicative Glass combinations

10mm + 6mm or 4mm
12mm + 6mm or 4mm
15mm + 6mm or 4mm
19mm + 6mm or 4mm

Pilkington **Planar**[™] Laminated Safety Glass

Interlayer: 1.5 – 2mm (nominal)

There may be a step up on each side to 3mm

Glass size – rectangles

Maximum (4mm): 2000 x 3000mm –0 + 4mm
Maximum (6-19mm): 2000 x 3600mm –0 + 4mm
Minimum: 360 x 900mm –0 + 4mm
Aspect ratio: 10:1 Maximum

Larger glass sizes and weights greater than 350kg subject to enquiry.

Shape capability

Rectangles and simple shapes. All tolerances will vary depending on the complexity of shape.

Glass Edge condition

Smooth ground edges giving a flat profile with small ground arris. Shells or chips at edges will be ground out prior to toughening and do not constitute reason for rejection. Corners may be dubbed.

Some variation in edgework may be discernible on exposed edges where different machines and/or hand forming is a requirement for manufacture. Such variations shall be kept to a minimum.

Hole drilling – rectangles

Diameter: 38mm ±1mm
Diameter: 19mm ±1mm Countersunk
Position: Normally 60mm from glass edge at corners and sometimes along edge. Other configurations subject to confirmation.
Tolerance: ±2mm from one datum point.
Number: Up to 8

Method of production

Cast-in-place or PVB.

Toughening Stress

10/12/15/19mm glass: Pilkington T glass Plus
(Toughened and Heat Soaked)
4/6/8/10mm glass: Heat Strengthened

Glass marking

Glass will be marked with the Pilkington toughening stamp and will show compliance with regulatory requirements. The mark to be on each glass usually near a corner.

Multiple panes will not necessarily be marked in the same corner.

Visual quality

Cast-in-place

The cast-in-place process uses a clear tape 10mm wide around the edge and around the holes between the two glasses. The junction between the clear tape and the resin is just visible inboard from the edge of the glass and the holes.

Very fine bubble at resin/tape interface. One bubble of size 2-3mm will be acceptable per m run or per hole area. One bubble of size 2-3mm will be acceptable in the body of each plate but not in the visible area as defined by an oval touching the centre of all four sides.

PVB

Advances in PVB technology in recent years have led to improved edge stability. Under natural exposure conditions the edge of a PVB laminate will be of an acceptable quality when properly installed and maintained. However the possibility of minor delamination cannot entirely be excluded.

When viewed from a distance of 3m in transmission and in the vertical position, bubbles, dirt or fibres within the laminate will be considered to be unacceptable if readily visible due to their size or quantity.

Distortion

When laminating toughened or heat strengthened glasses together slight visible distortion in transmission due to the small lens effects will be noted with increase in viewing angle. The phenomenon is not normally a problem in roof glazing, but may be discernible in vertical glazing. Site inspection should be from a distance of 3m and viewed at right angles to the glass.

Installation

Whilst the Pilkington **Planar**[™] system is completely weatherproof, the components are not designed to be left in contact with water for extended periods, and adequate ventilation or drainage should be provided to allow the system to dry out periodically.

Weatherseals used around the periphery must be compatible with the Pilkington **Planar**[™] system and approval from Pilkington should be sought prior to application.

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