

Pilkington Planar™ System Information

Pilkington Planar™ Laminated Insulating Glass Units (IGUs)



Pilkington Planar™ Laminated IGUs

Performance of typical combinations with clear interlayer

Pilkington T glass Plus Outer Leaf	Heat Strengthened Glasses forming Laminated Inner Leaf	Light Transmittance LT	Light Reflectance LR	Total Solar Radiant Heat Transmittance	Total Shading Coefficient	U Value (W/m²K)	R _w Value (dB)
Pilkington Optifloat™ Clear 10mm 12mm	Pilkington Optifloat™ Clear 6mm + 6mm 6mm + 6mm	0.76	0.14	0.64	0.74	2.6	41
		0.75	0.14	0.62	0.71	2.6	42
Pilkington Optifloat™ Clear 10mm 12mm	Pilkington K Glass™ & Pilkington Optifloat™ Clear 6mm + 6mm 6mm + 6mm	0.67	0.18	0.61	0.70	1.7	41
		0.66	0.18	0.59	0.68	1.7	42
Pilkington Optiwhite™ 10mm 12mm	Pilkington Optiwhite™ 6mm + 6mm 6mm + 6mm	0.83	0.15	0.78	0.90	2.6	41
		0.82	0.15	0.78	0.90	2.6	42
Pilkington Optiwhite™ 10mm 12mm	Pilkington K Glass™ & Pilkington Optiwhite™ 6mm + 6mm 6mm + 6mm	0.73	0.19	0.73	0.84	1.7	41
		0.72	0.19	0.72	0.83	1.7	42

Determined in accordance with EN 410 and EN 673

Pilkington Planar™ Laminated IGUs – Glass Types

Glass Type	Colour	4mm	6mm	10mm	12mm	15mm	19mm	Notes
Pilkington Optifloat™	Clear	✓	✓	✓	✓	✓	✓	
Pilkington Optifloat™	Grey	✓	✓	✓				
	Bronze	✓	✓	✓				
	Green	✓	✓	✓				
Pilkington Optiwhite™		✓	✓	✓	✓	✓		
Pilkington Arctic Blue™	Blue	✓	✓	✓				
Pilkington K Glass™		✓	✓					
Pilkington Optitherm™ SN		✓	✓					<i>Subject to minimum quantity. Max. size 2000 x 3600mm</i>
Pilkington Suncool™ HP			✓	✓				<i>Subject to minimum quantity. Max. size 2000 x 3600mm</i>
Pilkington Decorative Glass Screen printed		✓	✓	✓	✓	✓	✓	<i>Maximum screened area 2000 x 3600mm (See enclosed data sheet for further details)</i>

Notes

All glass used in the laminated pane is heat strengthened.

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

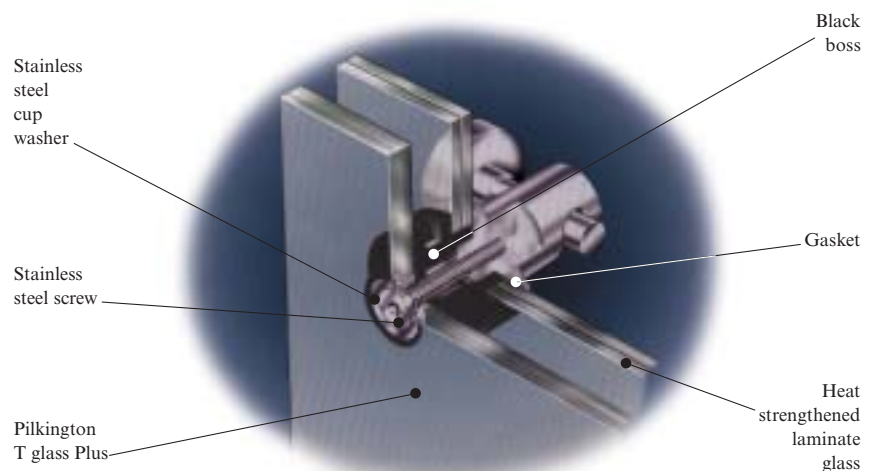
Special UV laminate interlayers are also available to provide exceptional UV protection.

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 double glazed units. 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.

905 Fitting to Double Glazed Pilkington Planar™ Laminated IGUs.



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Specification – Pilkington **Planar**TM Laminated IGUs

Composition

Pilkington **Planar**TM Laminated IGUs are manufactured from an outer pane of Pilkington T glass Plus and one laminated inner glass composed of two heat strengthened 4mm or 6mm glasses. Reference should be made to both single Pilkington **Planar**TM and single laminated Pilkington **Planar**TM specifications.

Pilkington **Planar**TM Laminated IGUs

Air space:	16mm	±1mm
Depth of silicone seal:	Minimum	5mm
Aluminium spacer depth:	7mm	
Spacer colour:	Black or Natural	
Laminated interlayer:	1.5 – 2mm	(nominal)
There may be a step on each side up to	3mm	
Overall thickness:	±2mm	tolerance

Glass size – rectangles

Maximum (4mm):	2000 x 3000mm	0 + 4.5mm
Maximum (6-19mm):	2000 x 3600mm	0 + 4.5mm
Minimum:	360 x 900mm	0 + 4.5mm
Aspect ratio:	10:1	Maximum for larger sizes

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.

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. Where the detail of a structure is such that the double glazing edge sealant is fully exposed, minor undulations in the edge seal may be discernible particularly near corners of the unit.

Hole drilling – rectangles

Diameter:	34mm ±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)
4/6mm glass:	Heat Strengthened

Glass marking

Glass will be marked with the Pilkington toughening stamp and will show compliance with other regulatory requirements. The mark will be on each glass pane.

Visual quality

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. The air in all sealed units expands and contracts in hot and cold weather causing the glass to bow out and in respectively and again reflections will reflect this movement. Site inspection should be from a distance of 3m and at right angles to the glass.

Installation

Whilst the Pilkington **Planar**TM 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**TM system and approval from Pilkington should be sought prior to application.

This publication gives a general description of the product and materials. It is the responsibility of the users of this document to ensure that the proposed application of the product is appropriate and that such application complies with all relevant local and national legislation, standards, codes of practice and other requirements. To the extent allowed by law Pilkington United Kingdom Limited hereby disclaims all liability howsoever arising from any error in or omission from this publication and all consequences of relying on it.



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