Planar™ System Information
Pilkington Planar™ Triple

Pilkington Toughened and Heat Soaked Glass Outer Pane (10 mm)

Pilkington Toughened and Heat Soaked Glass Centre Pane (6 mm)

Pilkington Toughened and Heat Soaked Glass Inner Pane (6 mm)

Light Transmittance LT

Light Reflectance LR

Total Solar Radiant Heat Transmittance

Total Shading Coefficient

U-value [W/m²K]

R-value [dB]

Please note that these are a selection of Solar Control glasses within the range and the performance data supplied is indicative only and can vary subject to the substrate used.

Technical data has been calculated according to BS EN 410 and BS EN 673. The above table has been updated to take into account the declared values of radiation and thermal properties required for CE Marking. R-value is indicative for PVB interlayer product only and will be subject to minor variations dependent upon the size of the glass panels and the number of fittings required.

Due to the versatility of this product multiple combinations are possible. If you require different performance characteristics please contact Pilkington Architectural for advice.

Pilkington Planar™ Triple Units – Glass Types

<table>
<thead>
<tr>
<th>Glass Type</th>
<th>6 mm</th>
<th>10 mm</th>
<th>12 mm</th>
<th>15 mm</th>
<th>19 mm</th>
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<tr>
<td>Pilkington Optifoat™ Clear</td>
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<tr>
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<tr>
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<tr>
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Notes

Campaign Product. Must be forecast in advance of manufacturing

Maximised screened area 2400 x 4500 mm (See enclosed data sheet for further details)
Specification - Pilkington Planar™ Triple Units

COMPOSITION

Pilkington Planar™ Triple Units are manufactured from three panes of fully toughened and heat soaked glass and reference should be made to the single Pilkington Planar™ specifications for technical data which is not contained herein.

CENTRE/INNER PANES

- Thickness: 6 mm ±0.2 mm
- 8, 10, 12 mm ±0.3 mm

Pilkington Planar™ Triple Units

- Airspaces: 16 mm ±1 mm
- Depth of silicone seal: Minimum 4 mm
- Aluminium spacer depth: 7 mm
- Sightline of unit edge seal: 12 mm min. 20 mm max.
- Spacer colour: Black or Natural

GLASS SIZE – RECTANGLES

- Maximum: 2500 × 5000 mm ±4.5 mm
- Minimum: 300 × 500 mm ±4.5 mm
- Aspect ratio: 14:1 Maximum
- Diagonal tolerances:
  - Up to 4 m: 3 mm Maximum difference
  - Over 4 m: 4 mm Maximum difference
- Max. overall unit thickness: 58 mm (Larger on request)
- Maximum weight: 1000 kg

SHAPE CAPABILITY

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

ROLLER WAVE – ALL GLASSES SAME DIRECTION

- Mean roller wave:
  - t < 8 mm: 0.05 mm
  - t ≥ 8 mm: 0.02 mm
- Coated glass: 0.05 mm
- Maximum edge dip: 0.25 mm
- Roller wave is usually parallel to the short side and in coated glasses should be glazed horizontally where possible.

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 glazing edge sealant is fully exposed, minor undulations in the edge seal may be discernible particularly near corners of the unit. Where a unit uses a Pilkington Planar Sun, Pilkington Suncool® or Pilkington Optitherm® S1 coating, it must be edge-deleted in the area of the unit edge seal to ensure maximum unit durability. Depending on product type, orientation and light conditions, the edge-deleted zone may be visible to the naked eye.

ARGON FILLING

It is generally accepted that Argon gas will slowly dissolve through the seals over a period of time, the rate of diffusion being dependent on several factors such as unit size and the environment in which it is glazed. The total retention of Argon in the unit cannot therefore be guaranteed for the life of the unit.

HOLE DRILLING – RECTANGLES

- Diameter: 34 mm ±1 mm
- Diameter: 19 mm ±1 mm Countersunk
- Position: Normally 60 mm from glass edge at corners and sometimes along edge.
- Number: Up to 10 (more on request)

TOUGHENING STRESS

Thermally toughened soda lime silicate safety glass to BS EN 12150. Classified as 1 (C) 1 to BS EN 12600. Checked regularly during production by fracture count or the Differential Stress Refractometer (DSR) method.

HEAT SOAK TESTING

All toughened glass will be supplied heat soaked to or in excess of international specifications e.g. BS EN 14179.

LITESENTRY OSPREY SCANNER

A LiteSentry Osprey Scanner is used to monitor and ensure high quality aesthetics of the Pilkington Planar™ glass products.

GLASS MARKING

Glass will be marked with the Pilkington toughening stamp and will show compliance with regulatory requirements. The mark will be on each glass pane. Multiple panes will not necessarily be marked in the same corner. However the thinner glass will generally be marked with a relatively discreet linear brand within the area of the unit edge seal.

VISUAL QUALITY – DISTORPTION

Pilkington Planar™ Triple Units are manufactured from three panes of toughened glass which has minimal effect on visual transmission through the glass but some distortion can be seen in reflection. 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. On occasion such effects can be increased by the specification of a coated glass. Site inspection should be from a distance of 3 m and 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 Architectural should be sought prior to application.