Pilkington Planar™ System Information
Single glass – flat and curved

**Single Pilkington Planar™ Glazing – Performance**

<table>
<thead>
<tr>
<th>Glass Type</th>
<th>Colour</th>
<th>Thickness [mm]</th>
<th>Light Transmittance LT</th>
<th>Light Reflectance LR</th>
<th>Total Solar Radiant Heat Transmittance</th>
<th>Total Shading Coefficient</th>
<th>U value [W/m²K]</th>
<th>R value [dB]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilkington Optifloat™ Clear</td>
<td>10</td>
<td>0.88</td>
<td>0.08</td>
<td>0.82</td>
<td>0.94</td>
<td>5.6</td>
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</table>

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.

**Single Pilkington Planar™ – Glass Types**

<table>
<thead>
<tr>
<th>Glass Type</th>
<th>Colour</th>
<th>Flat</th>
<th>Curved</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>Pilkington Optifloat™ Clear</td>
<td>+</td>
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</tr>
<tr>
<td>Pilkington Optifloat™ Bronze</td>
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<tr>
<td>Pilkington Optifloat™ Green</td>
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<tr>
<td>Pilkington Optiwhite™ Extra Clear</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
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<tr>
<td>Pilkington Arctic Blue™ Blue</td>
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<td>+</td>
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<tr>
<td>Pilkington Activ™ Clear</td>
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<tr>
<td>Pilkington Activ™ Blue</td>
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<tr>
<td>Pilkington Screen Printed Glass</td>
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<td></td>
<td>Maximum screened area 2400x4500 mm (See enclosed data sheet for further details)</td>
</tr>
</tbody>
</table>

**Specification - flat single Pilkington Planar™**

**FLAT GLASS**
- Thicknesses: 10, 12 mm ±0.3 mm
- 15 mm ±0.5 mm
- 19 mm ±1.0 mm

**FLAT GLASS SIZE – RECTANGLES**
- Maximum: 3050x5994 mm ±1 mm
- Minimum: 300x500 mm ±1 mm
- Aspect ratio: 14:1
- Larger on request
- Diagonal tolerance: Up to 4 m: 3 mm Maximum difference
  - Over 4 m: 4 mm Maximum difference

**FLAT SHAPE CAPABILITY – SIMPLE SHAPES**
- All tolerances will vary depending on the complexity of shape.

**BOW**
- Maximum bow: 0.1% (Float glass)
- 0.2% (Ceramic coated glass)

**ROLLER WAVE**
- Mean roller wave depth: 0.02 mm
- Maximum edge dip: 0.25 mm
- Roller wave is usually parallel to the short side and in coated glass should be glazed horizontal 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.

**HOLE DRILLING – RECTANGLES**
- Diameter: 19 mm ±1 mm countersunk
  - 23 mm ±1 mm countersunk (Min. 12 mm glass thickness)
- Position: Normally 60 mm from glass edge at corners and sometimes along edge.
- Other configurations subject to confirmation
- Tolerance: ±2 mm from one datum point.
- Number: Up to 10 (larger on request)

**PHOTOGRAPHICAL NOTE**
- Stainless Steel 905J fitting
- Silicone Weather Seal
- Stainless Steel Screw
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 rejection. Corners may be dubbed. Some variation in edgework may be discernible at edges will be ground out prior to toughening and do not constitute reason for rejection. Smooth ground edges giving a flat profile with small ground arris. Shells or chips edGe cOndiTiOn shape.

RECTANGLES and simple rakes. All tolerances will vary depending on 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 machine and/or hand forming is a requirement for manufacture. Such variations shall be kept to a minimum.

HOLE DRILLING
Diameter: 19 mm countersunk ±1 mm
Curved glass generally countersunk on convex side only although exceptions can be made. Please contact Pilkington Architectural for further assistance.

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. Weather seals used around the periphery must be compatible with the Pilkington Planar™ system and approval from Pilkington Architectural should be sought prior to application.

VISUAL QUALITY
Roller wave and natural bow in toughened glass have minimal effect on vision in transmission but can be observed in reflection, obviously more with reflective glass. This is kept to a minimum with the very low roller wave and bow in Pilkington Toughened and Heat Soaked Glass. Site inspection should be from a distance of 3 m and viewed at right angles to the glass.

VISUAL QUALITY
A degree of distortion, both when looking through and in reflection, is inevitable in curved toughened glass, particularly when viewing a moving object through the glass. All curved glass should be site inspected from a minimum distance of 3 m and viewed at right angles to the glass. It should also be noted that toughened curved glass will split direct sunlight into striped shadow.

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. Weather seals used around the periphery must be compatible with the Pilkington Planar™ system and approval from Pilkington Architectural should be sought prior to application.

GENERAL NOTES – CURVED GLAZING
Curved Pilkington Planar™ applications are the subject of continuing development and enquiries are welcomed for projects furthering current specifications and usage. Special fittings have been designed for curved glazing and particular torque settings determined. The angle of spring plate or 905 bar must suit the curve radius. The curve may be on any plane.

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The Declaration of Performance for each product, including declared values, can be found at www.pilkington.com/CE