Pilkington Profilit™

Technical Information on Pilkington Profilit™
Profiled Glass with System

- English Edition -
The Pilkington Profilit™ Product Range

The Pilkington Profilit™ product range comprises 4 standard profiles (K 22/7, K 25, K 32, K 50) and 3 special profiles (K 22/60/7, K 25/60/7, K 32/60/7).

Both standard (NP) and special profiles (SP) are also available with longitudinal wires.

The range of profile options available in terms of width, flange height and glass thickness means that almost all glazing requirements are catered for.

- In addition to the maximum lengths indicated, all other lengths in multiples of 25 cm starting from 100 cm can be supplied. Fixed dimension lengths are possible on request.

- Research has shown that interiors fitted with ornamented glass rather than plain glass enjoy significantly enhanced light capture.

### Physical characteristics and dimensions

| Tolerances: | ± 3 mm are allowed. |

### Cross-section

![Cross-section diagram]

### Pilkington Profilit™ types

<table>
<thead>
<tr>
<th>Designation as per DIN 1249 / EN 572 Part 7</th>
<th>K 22/7</th>
<th>K 25</th>
<th>K 32</th>
<th>K 50</th>
<th>K22/60/7</th>
<th>K25/60/7</th>
<th>K32/60/7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width w (mm)</td>
<td>232</td>
<td>262</td>
<td>331</td>
<td>498</td>
<td>232</td>
<td>262</td>
<td>331</td>
</tr>
<tr>
<td>Flange height h (mm)</td>
<td>41</td>
<td>41</td>
<td>41</td>
<td>41</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Glass thickness t (mm)</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Weight (single-glazing) kg/m²</td>
<td>19.5</td>
<td>19.0</td>
<td>18.2</td>
<td>17.0</td>
<td>25.5</td>
<td>24.5</td>
<td>22.5</td>
</tr>
<tr>
<td>Max. length supplied mm (not max. installation length)</td>
<td>6000</td>
<td>6000</td>
<td>6000</td>
<td>5000</td>
<td>7000</td>
<td>7000</td>
<td>7000</td>
</tr>
<tr>
<td>Number of longitudinal wires</td>
<td>7(*)</td>
<td>8</td>
<td>10</td>
<td>16(*)</td>
<td>7</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>With 16 longitudinal wires (meshing function)</td>
<td>-</td>
<td>16</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>16</td>
<td>-</td>
</tr>
</tbody>
</table>

### For facades

| For facades** | - | - | - | - | 8+2* | - |
| Heat insulating glass ‘plus 1.7’ | - | S | S | S | S | S |
| Heat insulating glass ‘plus 1.7 wired’ | - | S | S | - | - | S |
| Sun-protection glass ‘Antisol’ | - | S | S | S | S | - |
| Sun-protection glass ‘Antisol wired’ | - | S | S | - | - | S |
| Amethyst | - | S | S | - | - | S |
| Amethyst wired | - | S | - | - | - | S |
| Pilkington Profilit™ clear (without ornamentation) | - | S(*) | - | S(*) | - | S(*) |
| Pilkington Profilit™ clear wired (without ornamentation) | - | S | - | - | - | - |

### Light permeability in % (mean value)

<table>
<thead>
<tr>
<th>Light permeability in % (mean value)</th>
<th>SG: 86%</th>
<th>DG: 75%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat transmission coefficient Uₜₜ (W/m² x K)</td>
<td>SG: 5.6</td>
<td>DG: 2.8</td>
</tr>
<tr>
<td>Sound insulation value Rₘ from 100-3200 Hz</td>
<td>SG: 22 dB</td>
<td>DG: 38 dB***</td>
</tr>
</tbody>
</table>

* One wire per flange
** For Pilkington Profilit™ facades, consult our technical applications department prior to usage
*** Glass installation using Pilkington Profilit™ gaskets nos. 165 and 166

### Pilkington Profilit™ thermally toughened

Pilkington Profilit™ T and Pilkington Profilit™ T Color thermally toughened profiled glass with or without heat soak-test upon request. The supply lengths and maximum installation lengths provided in this document do not apply for Pilkington Profilit™ T and Pilkington Profilit™ T Color.

For the application of Pilkington Profilit™ the relevant national and international requirements and standards have to be considered in the various countries. We would be pleased to examine the possibility of supplying any product combination not mentioned above upon request.

Note: e.g. K 22 = 36 dB without padding, 38 dB with padding = Rₘ

Heat transmission coefficient Uₜₜ: W/m² x K; amount of heat that passes through a unit area of 1 m² of a material of a unit thickness S within one hour for a unit temperature difference to adjacent room or outside air of 1 K (°C).

1 = Pilkington Profilit™ profile-type glazing glass (standard production) / SG = single glazing / DG = double glazing

S = special production - for production-related reasons these products are only manufactured on a per-order basis and are not kept in stock.

(*) = sale from stock providing there are sufficient stocks available or from next production run.
Max. installation lengths for vertically installed Pilkington Profilit™ glazing

Pilkington Profilit™ panels not inclined and sealed

<table>
<thead>
<tr>
<th>Design wind load kN/m²</th>
<th>Single glazing (flange inside)</th>
<th>Double glazing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>K 22 L (m)</td>
<td>K 25 L (m)</td>
</tr>
<tr>
<td>0.50</td>
<td>2.70</td>
<td>2.50</td>
</tr>
<tr>
<td>0.60</td>
<td>2.40</td>
<td>2.30</td>
</tr>
<tr>
<td>0.70</td>
<td>2.30</td>
<td>2.10</td>
</tr>
<tr>
<td>0.80</td>
<td>2.10</td>
<td>2.00</td>
</tr>
<tr>
<td>0.90</td>
<td>2.00</td>
<td>1.90</td>
</tr>
<tr>
<td>1.00</td>
<td>1.90</td>
<td>1.80</td>
</tr>
<tr>
<td>1.20</td>
<td>1.70</td>
<td>1.60</td>
</tr>
<tr>
<td>1.40</td>
<td>1.60</td>
<td>1.50</td>
</tr>
<tr>
<td>1.60</td>
<td>1.50</td>
<td>1.40</td>
</tr>
<tr>
<td>1.80</td>
<td>1.40</td>
<td>1.30</td>
</tr>
<tr>
<td>2.00</td>
<td>1.30</td>
<td>1.20</td>
</tr>
<tr>
<td>3.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

This table gives standard installation lengths in metres, for vertically installed Pilkington Profilit™ glass within closed buildings and should be used as a guide only. However the local national regulations referring to safety parameters still have to be taken into account. In case of doubt or for questions please feel free to address the manufacturer’s technical service department.
Pilkington Profilit™ - Standard vertical glazing

Single and double shell glazing

Vertical section 1-1

single shell

- N° 950 top and side frame
- Pilkington Profilit™ SIL
- top and side PVC profile N° 962/2

- N° 961/1 bottom PVC profile
- N° 961/2 bottom frame
- N° 961/50 bottom frame

- N° 961/100 with integrated window sill

- drainage slit for condensation water

double shell

- N° 820 frames with thermal insulation

- N° 821 drainage slit for condensation water (offset)

Horizontal section 2-2

Single shell glazing

- N° 950 Pilkington Profilit™ SIL

- N° 820

- N° 962/1

Double shell glazing

- N° 950 Pilkington Profilit™ SIL

- gasket N° 166 (optional)

- N° 962/2

Note:

The following pages 4 - 9 show illustrations of standard applications for which Pilkington Profilit™ profiled glass can be used. In view of the wide range of application options for Pilkington Profilit™ of which the details however cannot be shown here, please contact our applications technology department for any further advice.
Pilkington Proilit™ - Special vertical glazing for sport halls

Double shell glazing

For sport halls see test certificate according to DIN 18032 part 3

Vertical section 1-1

frames with thermal insulation

possible for glass types K 22/60/7, K 25/60/7, K 32/60/7

Horizontal section 2-2

Double shell glazing
Pilkington Profilit™ - Installation of ventilation shutters

Pilkington Profilit™ installation system with ventilation shutter unit

The Pilkington Profilit™ installation system is a modular system essentially comprising the following elements:

- **High-quality aluminium profiles** - available as mill finished, anodised, RAL coated or thermally insolated options

- **Plastic insert or support profiles** - high impact resistance, light resistance, weatherproof and non warping

- **Ventilation elements** - standard sizes or made to order; marry perfectly with the Pilkington Profilit™ installation system, i.e. also available as thermally insulated option

**Note:**
Reinforcement is also required when ventilation shutter is fitted to the basic frame. If applicable, the H-frames should be checked to ensure they are sufficiently stable.

Vertical section 1-1

Horizontal section 3-3

Horizontal section 4-4

Vertical section 2-2
Pilkington Profilit™ - Standard horizontal glazing

Double shell glazing

View

Support angle with padding for each glass unit

Note:
Different glass types require structurally designed support angles

Frames with thermal insulation

Section 1-1

Joint between the glass panes: approx. 8 mm (thereof 2-3 mm space between glass and support angle below)

Support angle with padding to separate glass from metal (by customer)

Support angle (fixing with Halfen-screws)
Pilkington Profilit™ - Profiles for fix window elements

The following sketches are showing Isoglazed elements integrated into the Pilkington Profilit™ installation system.

Arbeitsstättenverordnung...
außerdem dieses Problem lösen die Pilkington Profilit™-Einbauteile.
Double shell glazing

Pilkington Profilit™

roof material

aluminium screen

substructure according to structural design

N° 963w
gasket
isolating layer
round cord
installation tape with core
Profilit™ SIL
Pilkington Profilit™
Pilkington Profilit™ wired

N° 940w
installation tape with core
additional sheeting as required
drainage slit
substructure according to structural design
roof joint
sealing foil

**Note:**
No details concerning roof joints, heat-insulating measures, etc. are given here.

The drainage slits for condensation water made by customers are depending on the fixing of the frames and the inclination of the glazing. Max. frame loading in case of vertical installation (e.g. non bearing facades) - double layer - due to weight of glass $l \leq 3.50$ m! Max. interval between bolts of 20 cm. In case of thermal broken frame N° 940w $l \leq 3.00$ m.
General text for tender (recommendations) for Pilkington Profilit™ - Profiled glass with system

General survey

Contents:

I) Standard profile (NP) glazing with Pilkington Profilit™ frame profiles installed vertically as a row of windows

II) Special profile (SP) glazing with Pilkington Profilit™ frame profiles installed vertically as a row of windows

III) Sports hall glazing systems as per DIN 18032 with the Pilkington Profilit™ profiles K22/60/7, K25/60/7 and K32/60/7 and Pilkington Profilit™ frame profiles installed vertically as row of windows

IV) Pivoted casements, for installation in Pilkington Profilit™ glass walls (standard profiles - series 60)

V) Hinged wing units for installing in Pilkington Profilit™ glass walls (special profiles - series 83)
General text for tender (recommendations) for Pilkington Profilit™ - Profiled glass with system


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This publication gives a general description of the product and materials and should be used as a guide only. It is the responsibility of the user of this document to ensure that the use of the Pilkington Profilit™ System is appropriate for any particular application, and that such applications comply with all relevant local and national legislation, standards, codes of practice and other requirements.

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