

## Kappa

### Flexible application

Kappa readily allows the integration of unframed photovoltaic modules into new and old roofs regardless of the type of roof covering.<sup>1</sup> Kappa is mounted onto the existing roof battens and replaces the regular roof cladding.

### Rapid mounting

All components (including the flashing) are pre-fitted according to the chosen PV module and module configuration. Further reduction in installation time and cost is achieved through a maximum of pre-assembly and the patented click-system of the support rails.

### High impermeability

In terms of impermeability Kappa fulfils the requirements of conventional tile roofs. The special supporting profiles guarantee proper rear ventilation and rainwater drainage.<sup>2</sup>

### Individual array

The roof can be entirely or partly covered with modules. Essentially, all connected module arrangements and integration of windows<sup>3</sup> are possible.

### Appealing optics

Levelling the modules with the roof covering, Kappa is the most appealing method of mounting PV modules.

### Maximum service life

All profiles and flashings (aluminium), while being completely recyclable, guarantee maximum service life through their high resistance to corrosion.



*In-roof*



*Unframed module*



*Orientation portrait*



*Double Roman Tiles*



*Bitumen shingles*



*Slate*



*Plain Tiles*



<sup>1</sup> Kappa is compatible with nearly all types of tiles, formwork and slate coverings. For detailed information, please contact us during the planning stages of your project.

<sup>2</sup> Complies with German roofing regulations. Any installation must also be in accordance with local roofing regulations.

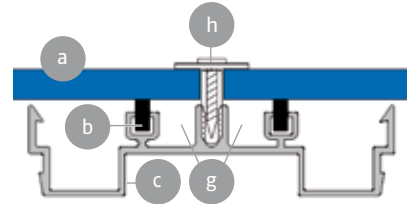
<sup>3</sup> Subject to previous checking.



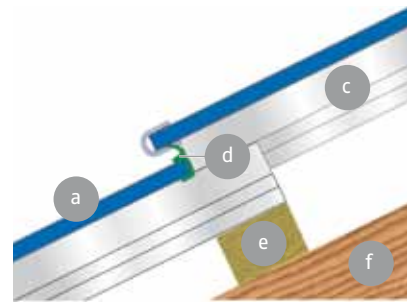
<b>Application</b>	<i>Pitched roof – roof integration</i>
<b>Roof cladding</b>	<i>Suitable for nearly all types of roof coverings</i>
<b>Roof slope</b>	<i>&gt;23° (lower upon request)</i>
<b>PV modules</b>	<i>Unframed<sup>1</sup></i>
<b>Type of mounting</b>	<i>Shingle technique</i>
<b>Module layout</b>	<i>Connected surfaces, as well as entire roof. Integration of windows possible (subject to previous checking).</i>
<b>Module thickness</b>	<i>&lt;10 mm (&gt;10 mm upon request)</i>
<b>Module orientation</b>	<i>Portrait, landscape<sup>2</sup></i>
<b>Size of module field</b>	<i>Any size possible</i>
<b>Positioning on roof</b>	<i>No special requirements</i>
<b>Roof construction</b>	<i>Battens as for conventional tile covering<sup>3</sup></i>
<b>Standards</b>	<i>Eurocode 1 - Actions on structures Eurocode 9 - Design of aluminium structures</i>
<b>Supporting profiles</b>	<i>Extruded aluminium (EN AW 6063 T6)</i>
<b>Hooks, small parts</b>	<i>Stainless steel (V2A)</i>
<b>Flashings</b>	<i>Top and side flashings: aluminium; Bottom flashing: lead</i>
<b>Seals</b>	<i>EPDM</i>
<b>Colour</b>	<i>Profiles/flashings: natural (colour coating optional) Lead strip: umber grey</i>
<b>Warranty</b>	<i>10 years<sup>4</sup></i>

**Warning!** Waterproofing of the roof is heavily dependent on correct installation! To avoid problems, we would be pleased to provide you with training, or can arrange to have one of our installers come out.

For further information, please contact us.



Horizontal section



Side view

- a PV module
- b Rubber profile
- c Module-supporting profile
- d Edge protection rubber
- e Batten
- f Rafter
- g Drainage
- h Suction safeguarding

1 Compatible with nearly all current unframed modules.  
 2 Only possible if junction box is positioned at least 55 mm from edge of module.  
 3 The standard screws delivered are meant for mounting on wooden battens sized 40 x 60 mm (variation upon request).  
 4 Please find the exact terms in the Mounting Systems GmbH Warranty document.