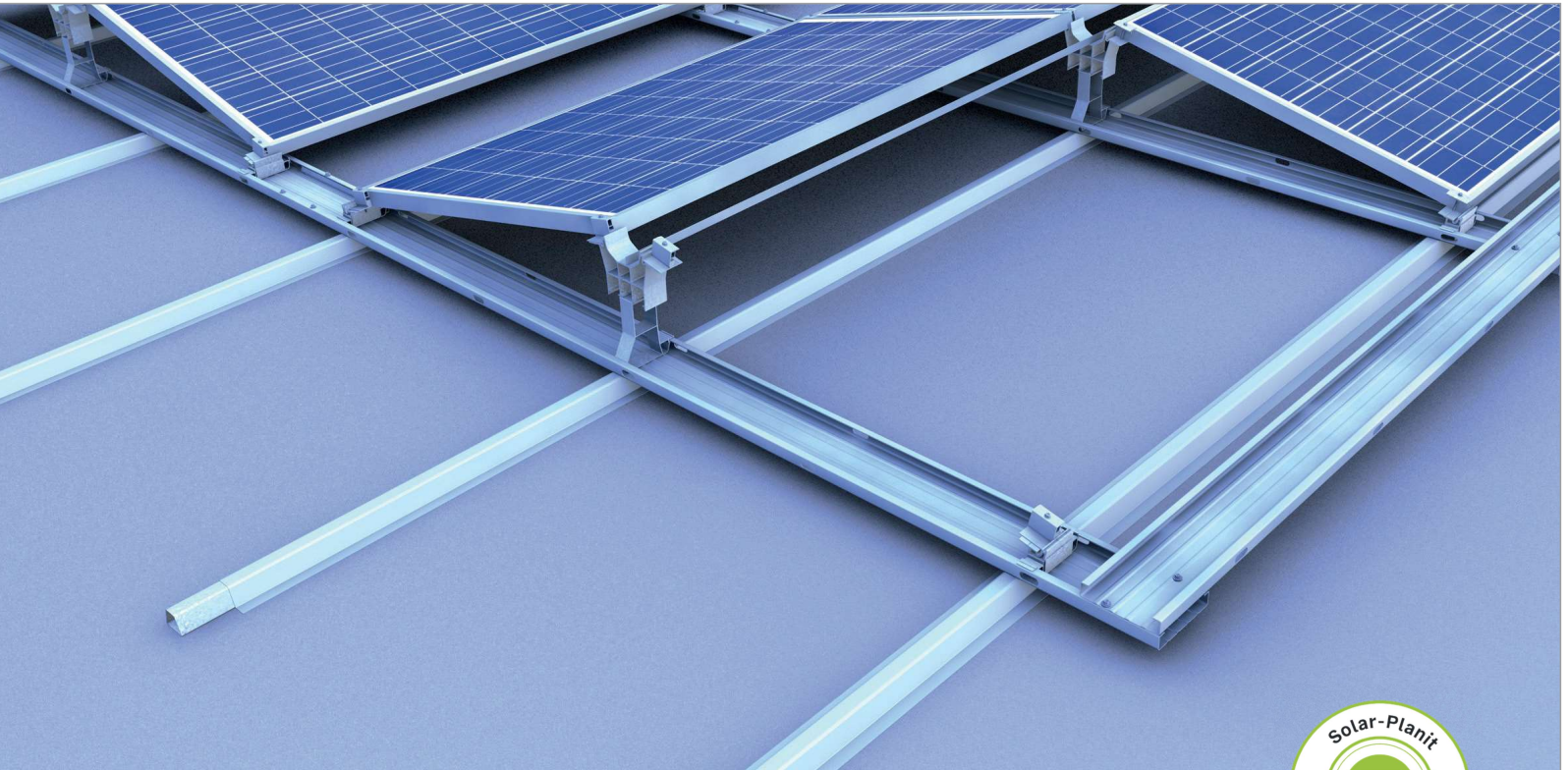
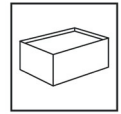


## Flat Roof System | East-West System II | TPO

Flat roof system east-west II

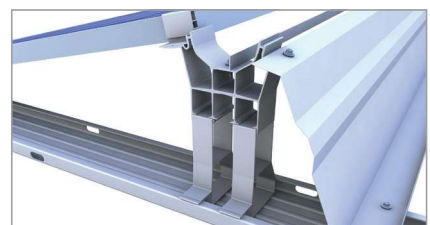
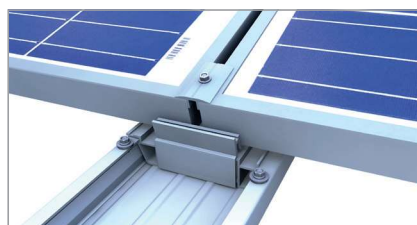


### Our EAST-WEST facing solution on TPO roofs

- Without ballast
- Quick and easy to install
- Suitable for use on new membranes or roofs renovation without dismantling the existing membrane
- Better distribution of the production over the day in order to optimise self-consumption
- Optimisation of production with bifacial modules on reflective membrane

### Advantages

- Wind tunnel tested aerodynamics
- No waterproofness penetration
- Overall roof load less than 10 kg/m<sup>2</sup>
- 13° tilt angle
- Easy calculation in accordance with Eurocodes
- ETN certified mounting system



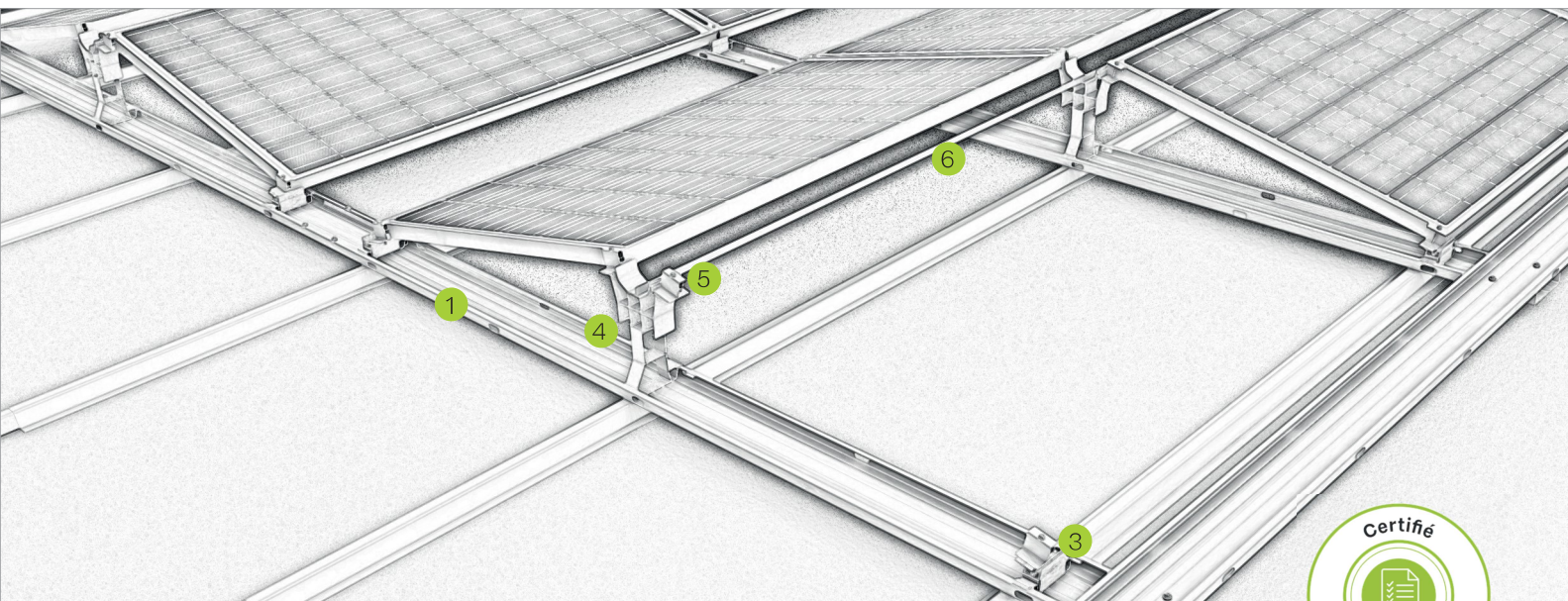


Fig Description

- ① **Base rail**
  - can be used as a cable duct with the optional cover

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- ② **Rail connections and free-standing fasteners**
  - connection for panel fields up to 17 m
  - free-standing connection for the connection of two panel fields of more than 17 m

---

- ③ **Base foot**
  - quick-clip without additional screwing
  - pre-drilled for easy mounting of the panel clamp

---

- ④ **Module support**
  - quick-clip without additional screwing
  - pre-drilled for easy mounting of the module clamp

---

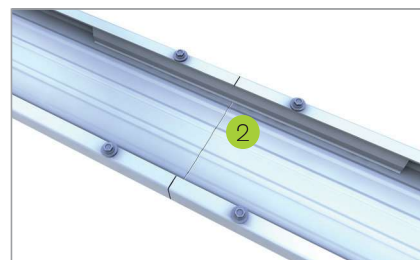
- ⑤ **Module clamp**
  - completely pre-mounted
  - with self-drilling head for easy screwing in

---

- ⑥ **Support brace**
  - limitation of the wind load
  - interconnection of the modules supports

---

- ⑦ **Self-drilling screw**
  - For fixing the base rail to the TPO rail



Rail connector kit



Self-drilling screw

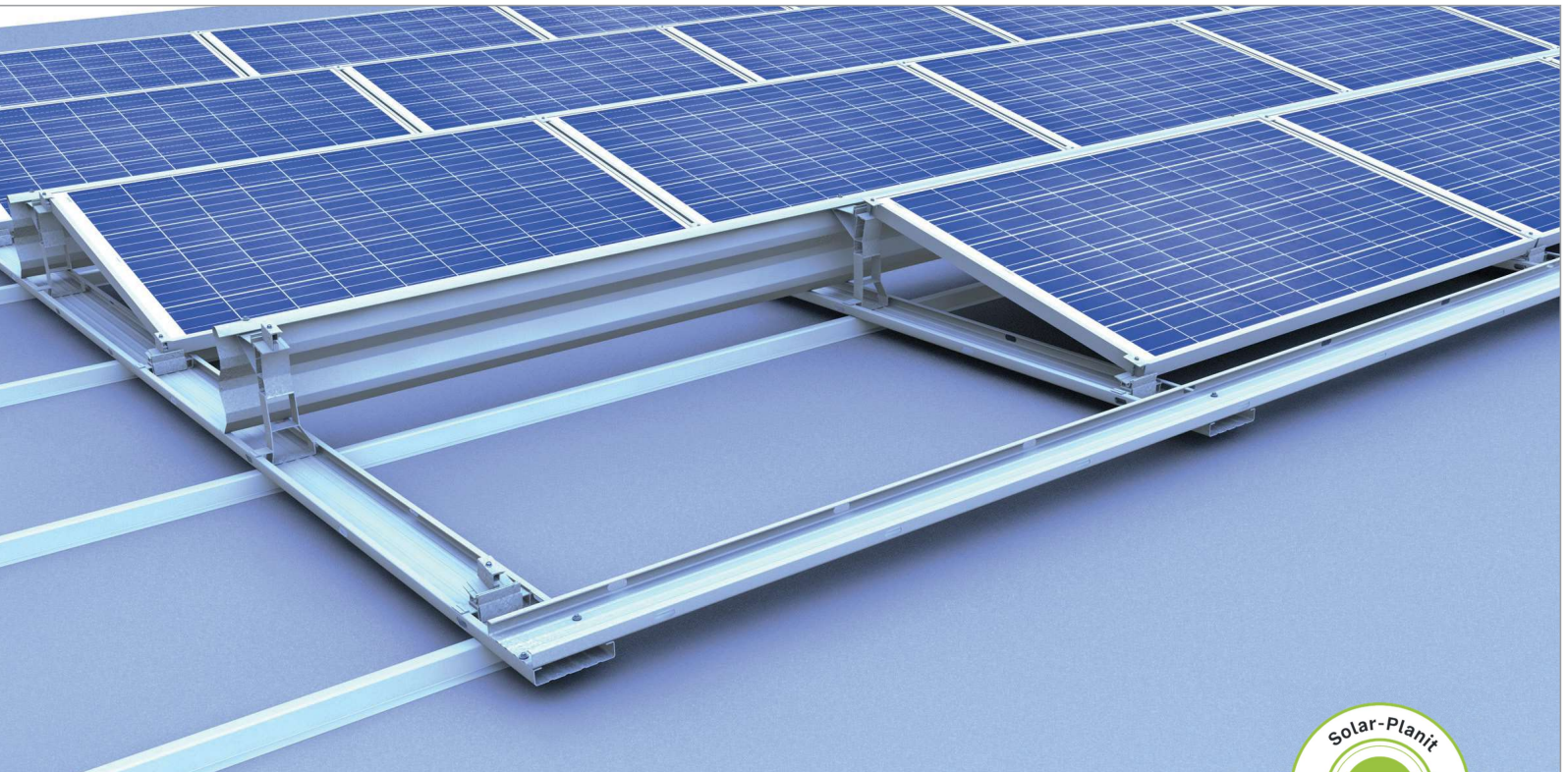
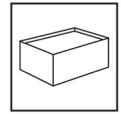
## Sales office

BayWa r.e. Solar Systems S.à r.l.  
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[solarsystems@baywa-re.lu](mailto:solarsystems@baywa-re.lu)  
[solar-distribution.baywa-re.lu](http://solar-distribution.baywa-re.lu)

**novotegra GmbH**  
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 Tel. +49 7071 98987-0, [info@novotegra.com](mailto:info@novotegra.com)  
[www.novotegra.com](http://www.novotegra.com)

## Flat roof | System South II | TPO

Flat roof system closed II



### Our south-facing solution on TPO roofs

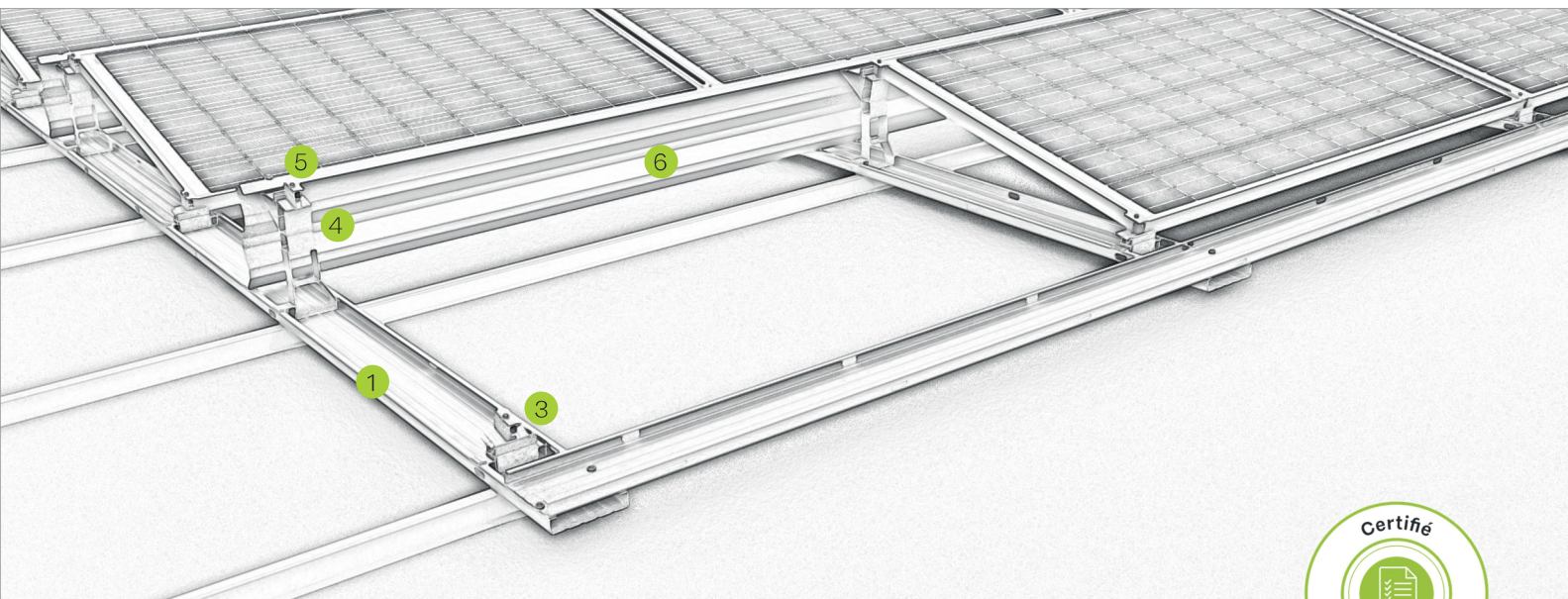
- Without ballast
- Quick and easy to install
- Suitable for use on new membranes or roofs renovation without dismantling the existing membrane
- Optimisation of production with bifacial modules on reflective membrane

### Advantages

- Wind tunnel tested aerodynamics
- No waterproofness penetration
- Overall roof load less than 10 kg/m<sup>2</sup>
- 13° tilt angle
- Easy calculation in accordance with Eurocodes
- ETN certified mounting system

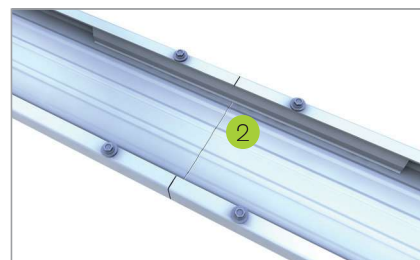


## Flat roof | System South II | TPO



### Fig Description

- ① **Base rail**
  - can be used as a cable duct with the optional cover
- ② **Rail connections and free-standing fasteners**
  - connection for panel fields up to 17 m
  - free-standing connection for the connection of two panel fields of more than 17 m
- ③ **Base foot**
  - quick-clip without additional screwing
  - pre-drilled for easy mounting of the module clamp
- ④ **Module support**
  - quick-clip without additional screwing
  - pre-drilled for easy mounting of the module clamp
- ⑤ **Module clamp**
  - completely pre-mounted
  - with self-drilling head for easy screwing in
- ⑥ **Wind deflector**
  - limitation of the wind load
  - interconnection of high supports
- ⑦ **Self-drilling screw**
  - For fixing the base rail to the TPO rail



Rail connection kit



Self-drilling screw

## Sales office

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# Imper Italia

Established in 1936, Imper Italia is a pioneer in the development and production of TPO membranes. As the undisputed world leader with over 25 years of experience, the group to which Imper Italia belongs has a production capacity of 32 million m<sup>2</sup>. Since 2005, CGMA and IMPER ITALIA have been investing in the development of photovoltaic processes on TPO waterproofness.



## SINTOFOIL TPO membrane

- Available in 1.8 or 2.0 mm
- Grey or white to improve the thermal emissivity of the building (cool roof effect)
- White with high reflectivity for better performance
- 20 year warranty
- Durable product (40 years), ecological and recyclable, inert nature, no added plasticizer
- Developed and tested on ribbed steel sheet (classic and long span) and concrete
- Brooft1 (Belgium) and Brooft3 (France) classification for new construction or complete renovation projects (without dismantling the existing membrane)
- Hot air welding without fire risk
- New and renovation projects
- Compatible with all insulation materials and bitumen

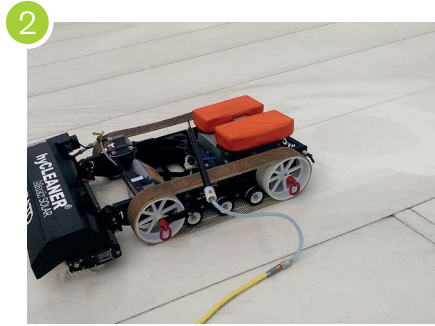


# CGMA TPO photovoltaic integration process



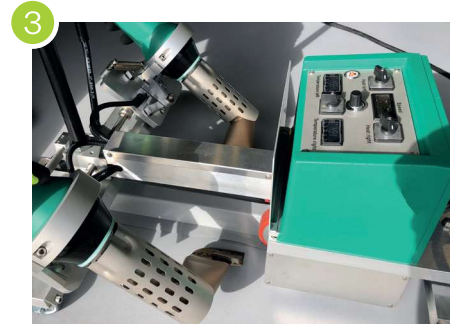
## Laying the membrane

- No manual, time-consuming, tedious and risky welding
- Use of standard width strips (1.50 m, 1.05 m and 0.75 m)
- Suitable for renovation without dismantling of the existing membrane



## Preparation of the waterproofing (retrofit application)

- Cleaning of the membrane with automated robot
- Reactivation of the membrane



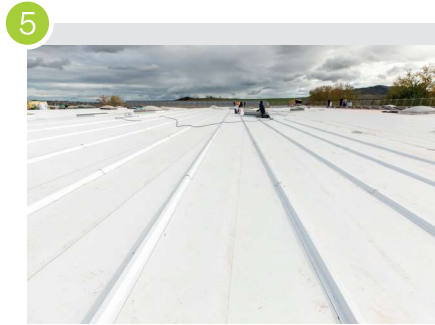
## Renting a robot

- Developed in partnership with a leading manufacturer
- Very high speed of execution (welding at 5 lm/minute)
- Risk-free



## Thermo welding of the TPO CGMA profile

- Thermo welding with hot air (not flame)
- Extremely light profile 1 kg/lm
- No penetration of the waterproofness
- Automated procedure



## PV ready roof

- Optimisation of the investment
- The waterproofing is carried out according to the best practice
- The roof is ready to receive the photovoltaic modules



## novotegra system and PV modules installations

- Without ballast, without penetration of the waterproofing membrane
- In accordance with Eurocode EN 1991-1-4
- Dynamically wind tested according to ETAG 006, EN 16002 and EN 12179
- Statically tested according to EN 12316- 2 and EN 12317-2
- Compression and traction tested according to a protocol defined by a certified institution.

Sales office

**CGMA**  
INNOVATIVE FLAT ROOF SOLUTIONS

Business Development Europe | Upper Italia Group

**novotegra**

Advanced photovoltaic solutions