

# Solar Carbon

Adesolar® by Adexsi UK

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The SOLAR Carbon is an aerodynamically optimized substructure with roof penetration and ballast-free adhesive roof attachment (welding).

It is attached using bitumen or plastic sleeves on flat roofs for mounting framed photovoltaic modules using compression spring clamps and module locking pins.

#### **Operation Area**

- Flat roof according to the installation conditions of the assembly instructions
- Up to a maximum of 3° (corresponds to approx. 5%) for bitumen waterproofing and up to a maximum of 10° (corresponds to approx. 17%) for plastic roofing membranes with mechanical fastening
- Gradient max. 2% can be built over
- Module inclination angle: 12°
- Roofs with low load capacity reserves system weight approx. 10-16 kg/m2
- South, east-west and east-west optimized installation types
- Structural strengthening via additional central attachment for high wind load cases

### Installing

If necessary, clean the roof surface. Measure and mark the installation grid on the roof surface.

Align the base plates with collars in the crossing points. Weld the sleeves to the seal over the entire surface. Set up the module carrier and anchor it in the base plates with twist locks.

Clamp the photovoltaic module in the clamping hooks and insert the locking pins into the openings provided in the module carrier.

Proof of the stability of the mounting frame (PV statics) according to DIN EN 1991 Eurocode 1 + DIN EN 1991-1-1/NA for the object by MW Photovoltaic Engineering GmbH required.

Proof of sufficient load capacity reserve with PV system (building statics) must be provided on site.

The SOLAR Carbon substructure is non-conductive and therefore does not have to be grounded or integrated into the (lightning protection) equipotential bonding.



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**Note:** Due to the different requirements for objects and different working conditions, the project-related test of the SOLAR Carbon substructure for suitability by the processor is always necessary.

### Installation Instructions

Observe the assembly instructions for the SOLAR Carbon substructure and approvals for seals/roof structures (e.g. "hard roofing") and PV modules (compatibility with the installation regulations for the substructure, permissible pressure and suction loads from the manufacturer) as well as the permissible load on the flat roof insulation/compressive strength.

#### Disposal

Dispose of components at suitable locations based on the material markings or the embossed recycling codes.



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- **1.** Mark grid; Put on the sleeve and the base plate
- 2. Align and weld collars at crossing points
- **3.** Optional: additional center attachment with sleeve and base plate, to protect against wind suction in special load cases
- 4. Set up consoles and anchor with twist locks
- Position the PV module\* at the attachment point, pull it flat into the clamping mechanism and hang it on the upper hook; Insert locking pin at top
  - \* PV modules not included





### System Dimensions















### **Technical Data**

Description	Unit	Value	
Module Carrier	1 Stk	Supporting structure for the PV module, corner support, concealed clamps on the L-web of the PV module (observe the installation conditions!)	
Material	-	Module carrier made of polypropylene for outdoor use, individual components made of polyamide, glass fiber reinforced	
Weight	KG	4	
Dimensions (I x w x h); thickness	mm	1.525 x 330 x 310	
Wall Thickness	mm	2.5 to 4	
Module Level Mounting Bracket	0	12	
Integrated cable tie holder Opening length x depth	mm	9 x 4	
Reaction to Fire	Class	E	
Resistance to Environmental Influences	-	UV-stable, weather-resistant, resilient to freeze-thaw cycles, saltwater-resistant	
Electric Conductivity	-	Not conductive	
Screw Cap	2 Stk	Closure to base plate sleeve welding	
Material	-	Polyamide, glass fiber reinforced	
Dimensions (ø l h l d)	mm	Top: 80 / Bottom: 46   35   3.5	
Weight	KG	0,065	
Reaction to Fire	Class	Fire Class E	
Base Plate	2 Stk	Recording of the twist locks	
Material	-	Polyamide, glass fiber reinforced	
Dimensions (I x w x h); thickness	mm	280 x 100 x 35; 3,5	
Weight	KG	0,17	
Locking Pin	4 Stk	Securing the position of the PV module	
Material	-	Polyamide, glass fiber reinforced	
Dimension (w x h)	mm	24,5 x 35	
Weight	KG	0,0067	
Cuff	2 Stk	Welded roof attachment	
Material	-	Polyamide, glass fiber reinforced	
Dimension (I x b)	mm	440 x 260	
Weight	KG	BIT about 0.75; FPO about 0.3	
Reaction to Fire	Class	E	
Packaging	-	100 module carriers and accessories on a one-way pallet	
Material	-	Disposable pallet, wrapped	
Dimensions (I x w x h); thickness	mm	1.500 x 1.500 x 1.650	
Weight	KG	450	

\* Dimensional tolerances up to 5%. \*\* Images are for illustration purposes and may differ slightly from the products.







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