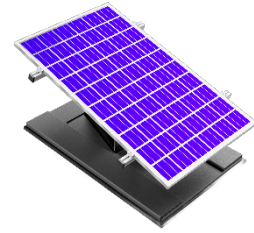


PRODUCT NAME: Biosolar

Product description: Photovoltaic panel mounting system



The E-Biosolar system is an integrated photovoltaic system specifically designed for extensive, semi-intensive and biodiverse green roofs. The combination of green roof and solar system is an ideal solution, the two systems contribute to each other's efficient operation, ensure renewable energy production and sustain biodiversity. It is a professional solution to produce renewable photovoltaic energy on the green roof or Bluerroof system. It is recommended to be installed on extensive, semi-intensive and biodiverse green roofs by choosing the appropriate species used, avoiding shading of the panels by tall vegetation. The system can be installed on both new and renovated buildings, allowing it to be laid over the entire roof surface. The roof is considered biodiverse thanks to the installation. Shaded areas, formed by the positioning of the panels, give rise to plant zones with a distinct microclimate compared to those found on the sunny side.

ADVANTAGES

- Improved performance due to the cooling effect of the vegetation on the green roof; the cooling effect contributes to 10-20% more efficient performance (the efficiency of the solar system depends on the surrounding temperature, the higher the temperature the less efficient it will work, on a bitumen roof the temperature can reach 90° Celsius).
- Raised modules allow light to penetrate and provide a moisturising layer for vegetation.
- They do not damage the waterproofing, they are installed without penetrating it, using the substrate ballast and vegetation. Properly ballasted, it can withstand wind speeds of up to 150 km/h (please ask for a specialist study/each individual objective).
- Installed on the green roof it can contribute to an increased BREEAM score.
- More economical than mechanically fixed systems.

PROPERTIES

- The panels are made of recycled high-density polyethylene (HDPE), with the rest of the elements made of Magnelis®, aluminium and stainless steel.
- The modules are elevated above the roof vegetation.
- Conforms to EU standards.

INSTALLATION

- Panels should be laid at a greater distance of 1.5 m, ensuring sufficient space for the maintenance of the green roof, thus preventing accidental damage to the panels. Also the panels will not shade each other.
- Installation by 2 specialists is recommended.
- Before installation, the roof surface must be cleaned.
- The load-bearing capacity of the roof should be checked before installation.



TECHNICAL DATA SHEET

Product name: Biosolar

Product description: Photovoltaic panel mounting system

Technical data		Unit	Tolerance	Standard
Material	HDPE, polypropylene, stainless steel and aluminum			
Dimension	1600x1000	mm	2%	
Weight	10 kg/unit	without ballast, profile rail and PV modules		FLL
Filling capacity	8	l/plate		
Tensile strength	> 144 kN/m²			
Water flow capacity	i=0,01 0,34 l/(mxs) i=0,02 0,55 l/(mxs) i=0,05 0,93 l/(mxs)			
Standard module incline	10°, 15°, 20°			
Module direction	Portrait or Landscape			
Max. roof incline	5° (8,75%)			
Garanty	10 years system garanty			
Ballast	in line with static calculation (ballast weight and distances between supports should be calculated according to the location of the building and local wind conditions)			
System components	1x Basis plate 1x Profile holder Aluminium elevation bracket (portrait or landscape) Distance plate 50 cm w Profile rail (according to static calculation) Connecting elements			

The data are empirical values based on the current state of production and are subject to customary tolerances, but do not represent guaranteed properties. We reserve the right to make technical changes.

Last update: 26.06.2024.