

Press Information

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Solar Energy from Your Roofing Membrane

Buildings account for more than 40% of the total energy demand, while up to 80% of today's construction business is based on renovation of existing buildings. This indicates the importance of the building sector for reaching energy savings – but also energy generating potentials. The integration of solar-systems plays an increasingly important role to reduce emission gases from this sector. Solar Integrated's SolarRoof membranes are making especially large industrial and commercial low-slope roofs with low additional weight bearing capacity accessible for solar energy.

Low load bearing industrial roofs make up a large area of currently unused space, which could contribute to emission savings if made available for PV systems.

Traditional PV systems – framed in glass and tilted, which increases the weight by incurring wind loads – are often too heavy for industrial or commercial roofs, such as shopping malls, production halls or logistic centers.

This is different with the SolarRoof from Solar Integrated, which is made from a combination of high quality roofing membranes from Sika/Sarnafil and flexible solar technology from United Solar Ovonic.



The SolarRoof from Solar Integrated was specifically developed for the application on industrial and commercial low-slope roofs. Therefore it can also be used for buildings which can only bear a low additional static load to their roofs.

With 4,9 kg / m² the SolarRoof is very light-weight compared to traditional tilted solar technology (approx. 25 kg / m²). Due to the direct bonding to the roof no additional wind-loads occur. The weight load from tilted modules can be significantly increased by such wind-loads.

A nearly horizontal orientation (3° tilt angle are recommended, to ensure sufficient water drainage) is possible because the PV technology employed consists of amorphous silicon in triple junction technology, meaning three specific semiconductor layers. These three semiconductor layers absorb different wavelengths of the light spectrum. Particularly light of the blue wavelength range is absorbed better than with conventional solar cells. As a result the SolarRoof from Solar Integrated can start absorbing light earlier in the day until later in the afternoon. Also at low or diffuse light levels – e.g. when it is cloudy or overcast – high energy yields are possible.

Hence the sub-optimal orientation (which is not 100% to the South) and the low tilt angle (3° in comparison to 30° of conventional solar technology) do only have a negligible effect on the energy yield. That makes the SolarRoof of Solar Integrated the product of choice for photovoltaic systems on low-slope roofs, which are common in industrial and commercial buildings.

About Solar Integrated

Solar Integrated is a renown pioneer and leader in the commercial/industrial solar industry. Expanding beyond our core building integrated photovoltaic (BIPV) capabilities, we also provide solutions across a wide variety of ground and roof-mounted applications using



both BIPV and related solar technologies for utmost reliability, productivity, financial performance and environmental benefits.

Our blue chip customer base includes Carrefour, Coca-Cola Enterprises, Frito-Lay, Honeywell, IKEA, Lidl, Metro, ProLogis, San Diego Unified School District, Tesco, Toyota, Unibail-Rodamco, UPC Solar, U.S. Air Force, U.S. General Services Administration (GSA), U.S. Navy and Westfield and many more.

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