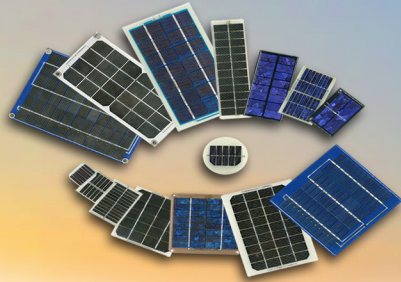




Customer Specified



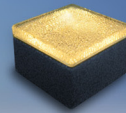
Thin Sol-Cryst-FLAT™ Panels

Expandable Up to 6 Panels = 4.5Wp

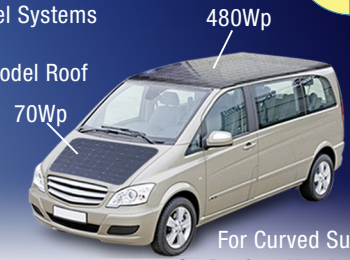


5+Yrs Pocket Sol-Charger™ Power Pack

Thin Sol-Cryst-Flex™ Panel Systems on Car Roof Fitted to Any E-Vehicle Model Roof



10+Yrs Sol-Paver™ Light Up to 10 ton vehicle load



For Curved Surfaces: On Roofs & Hoods of EV-HEVs

## Solar Technology Bulletin - Solar Crystalline (c-Si) Thin & Flexible Panels vs Solar Thin-Film (a-Si) Flexible Panels

Thin Film (a-Si) solar panels without glass can be thin, lightweight and flexible, but they are less power efficient than thin PV crystalline silicon (c-Si) solar panels due to the significant differences in solar light conversion efficiency as well as in materials and production processes, and a shorter life cycle -- 1-5 years/ a-Si vs 10-20 years/ c-Si.

Consequently, Thin Film solar panels only reach 5% to 12% efficiency and this is very insufficient for the limited area available for the high power needs of Outdoor Electronic/ Electric Products especially Electrical Vehicles or similar applications. The Thin Film Panels will Require More Footprint Space to produce the Same Amount of Electricity as Thin, Crystalline Silicon Solar Panels, which also causes more installation materials and costs for a much shorter lifetime.

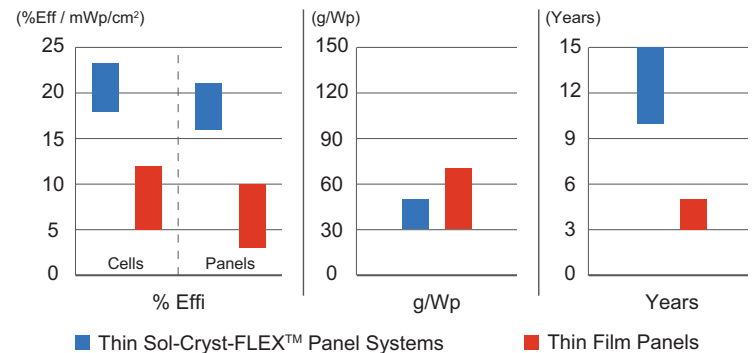
In order to overcome the disadvantages of Thin Film Panels' Low Power Density and Shorter Life Cycle, bySol-Lite has Successfully Developed and Produced a New type of "Thin, High Power Density and Long Life Solar Crystalline Flexible Panel". These new technology Solar Flexible Panels are as Thin and Lightweight as Thin Film Panels, but using the Highest Available Efficiency Crystalline Solar Cells (currently up to 23% or higher). This enables up to Three Times Higher Power Generation than Thin Film Panels of the Same Size, and with up to Three Times More Productive Years (10-15+ years Long Life).

Table 1- Conversion Efficiency & Weight Power Ratio: Thin Sol-Cryst-FLEX™ Panel Systems vs Thin Film Panels

Types of Solar Panels	% Eff or mWp/cm <sup>2</sup>		g/Wp*	Life Expectancy
	Cells	Panels		
Thin Sol-Cryst-FLEX™ Panel Systems	18 - 23 +	16 - 21 +	30 - 50	>10 - 15+ Years
Thin Film Panels	5 - 12 +	3 - 10 +	30 - 70 +	<3 - 5+ Years

\* Approx estimate from Web published data and real samples.

Chart 1 - Conversion Efficiency & Weight Power Ratio: Thin Sol-Cryst-FLEX™ Panel Systems vs. Thin Film Panels



bySol-Lite's Solar Crystalline Flexible Panels are encapsulated with special UV and weather resistant materials, through which our panels will last 10+ years without significant deterioration & still produce 80%+ capacity output (Learn More: [New Technology Thin Sol-Cryst-FLEX™ Max-, Mini-Panel Systems bySol-Lite](#)).

With no bulky and heavy glass covers nor big aluminum frames, the new technology Solar Crystalline Flexible Panels can be Easily Mounted to Multi Curved Surfaces and Supply Electrical Power to a Multitude of Large Consumer or Industrial, Electronic/ Electrical Devices, such as Electric Vehicles (EV-HEV), Electric Golf Car, Yacht, Roof Power Generation and so on.

If you need to have flexible solar panels but with up to Highest available Efficiency (18-23+%), then bySol-Lite's Solar Crystalline Flexible Panels would be the perfect solution for you! (Learn More: [Why Should You Use Long Life Products bySol-Lite?](#))

For more information or any enquires, please Contact Us at [sollite@bysol-lite.com](mailto:sollite@bysol-lite.com).