

CIGS VS CONVENTIONAL SOLAR



BiPVco solar panels use industry leading super thin photovoltaic cells.

Using advanced materials and manufacturing processes, BiPVco has developed a truly integrated photovoltaic system that can be installed in the same way as a conventional roofing system.

Utilising CIGS technology (Copper Indium Gallium Selenide), BiPVco's Flextron thin-film solar modules differ from traditional crystalline based Building Applied Photovoltaic systems (BAPV), which use heavier bulkier solar photovoltaic panels, mounted on top of roofs or other spaces after the construction of the building.

CIGS Technology



LIGHTWEIGHT

Less bulky at just 3mm in thickness, and weigh less than 3kg per m2



FLEXIBLE AND ROBUST

Glass-free thin film and flexible PV modules are robust and shatterproof



LOW-LEVEL LIGHT PERFORMANCE

Better performance in low light conditions and with better shade tolerance



LOW MAINTENANCE AND SELF-CLEANING

BiPVco modules have a unique self-cleaning surface, reducing maintenance costs over their lifetime



EASY INSTALL

No heavy racking or additional drilling needed - just peel, stick & connect

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THERE ARE MANY ADVANTAGES OF CIGS COMPARED TO TRADITIONAL CRYSTALLINE TECHNOLOGY:

Attribute	Flexible CIGS Modules	Framed Silicon Crystalline Modules
Module Weight	Lightweight and flexible (3 kg/m ²)	Heavy and rigid (~15 kg/m ²)
Low-level Light Performance	Captures more light throughout day including cloudy days	Poor, especially true on cloudy days
South Facing	Do not need to face south and can be mounted flat, without adversely affecting performance	Modules should face south for maximum performance – between 20 to 30 degrees
Shading Tolerance	High - multiple bypass diode design	Low - shade one cell, affects all
Appearance	Aesthetically pleasing	Industrial looking
Less Energy to Manufacture	Uses significantly less energy to produce than crystalline	High - wasteful process at much higher temperatures

