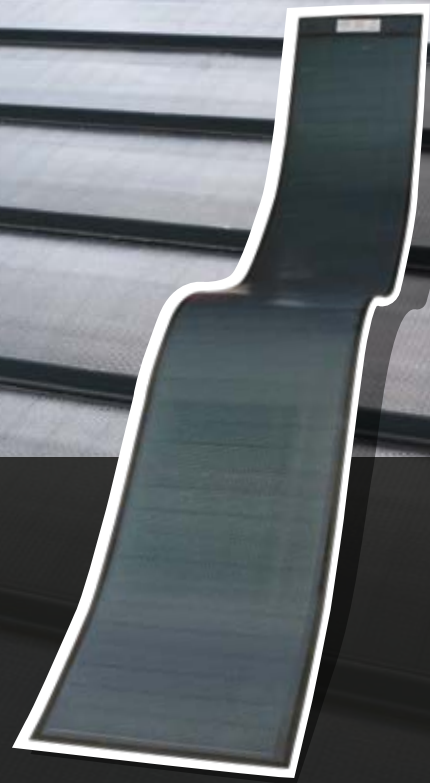


# FLEXTRON

Flexible Photovoltaic Roofing Solution

CIGS flexible, peel + stick



BIPVco is a British manufacturer of solar integrated roofing products, utilising market leading technology and processes to make Building Integrated Photovoltaics (BIPV) from conventional building materials; the BIPV functionalised roof works as a building product, whilst converting the building envelope from a liability into an asset by using the roof to generate low carbon electricity.

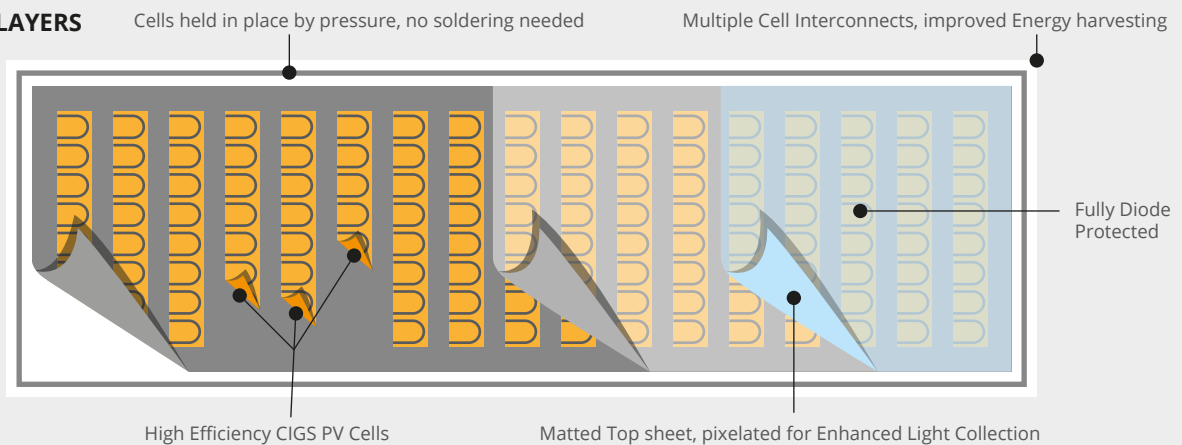
Flextron is a 'peel and stick' module with integrated solar cells. Modules are attached to the approved substrate to create a roofing system that can be installed in the same way as a conventional roof.

Flextron modules will be sold independently with a module warranty.

## KEY FEATURES

- Cell Efficiency, up to 17%
- Best in class thin film technology
- No ballast, penetrations or racking required
- Low installed weight of less than 3kg/m<sup>2</sup>
- Improved aesthetics
- Multiple Bypass Diode design to improve performance in shading/low light
- 25 year performance warranty, 5 year product warranty

## MODULE LAYERS



# TECHNICAL CHARACTERISTICS

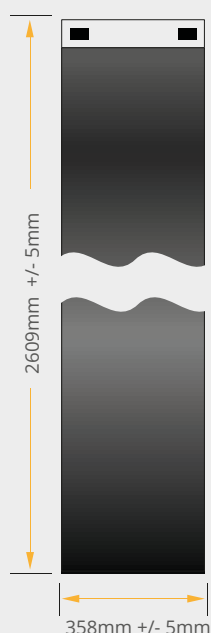
## DESCRIPTION

Copper Indium Gallium Diselenide thin film flexible solar module designed to be fitted to approved roofing panels. The modules are delivered with front mounted junction boxes with IP67 rated terminal housing assembly and quick connect terminals.

## ELECTRICAL PERFORMANCE AT STC<sup>1</sup>

		F13F115B1	F13F120B1
Nominal Power	$P_{MPP}$ [W]	115	120
Aperture Efficiency	$\eta$ [%]	15.0%	15.7%
Power Output Tolerance	[W]	+5/-0	+5/-0
Maximum Power Voltage	$V_{MPP}$ [V]	30.5	31.1
Maximum Power Current	$I_{MPP}$ [A]	3.83	3.89
Open Circuit Voltage	$V_{OC}$ [V]	38.6	39.1
Short Circuit Current	[A]	4.33	4.34
Maximum Series Fuse Rating	[A]		10

<sup>1</sup>Standard Test Conditions (STC): 1000 W/m<sup>2</sup>, 25°C cell temperature, AM 1.5 spectrum



## THERMAL CHARACTERISTICS

NOCT	[°C]	48
Temperature Coefficient of $P_{MPP}$	[%/°C]	-0.40
Temperature Coefficient of $V_{OC}$	[%/°C]	-0.36
Temperature Coefficient of $I_{SC}$	[%/°C]	0.003

## PHYSICAL AND MECHANICAL SPECIFICATIONS

Length	2609 mm
Width	358 mm
Thickness, Maximum at J-Box, Module	17 mm, 2.5mm
Weight (Module without adhesive)	2.0 kg
Weight (Module with adhesive)	2.7 kg
Weight/Area (Module without adhesive)	2.0 kg/m <sup>2</sup>
Weight/Area (Module with adhesive)	2.9 kg/m <sup>2</sup>
Junction Box Type	IP68
Cell Type	Copper Indium Gallium Diselenide (CIGS)
Certification	IEC 61730, 61646
Warranty**	5 year workmanship; 10/25 year power output

\*\* Please see full warranty for details

- Market leading high efficiency Copper Indium Gallium Diselenide (CIGS) solar photovoltaic (PV) cells that are applied to roofs and walls during the manufacturing of the building materials.
- Photovoltaic Integrated Roof Components – PV cells are directly encapsulated onto premium pre-painted steel/aluminum based or single ply membrane (TPO) roofs in highly controlled factory environment to create a combined PV roof system.
- Flexible Peel and Stick modules – PV cells are encapsulated onto a plastic backing sheet with specialist adhesive for supply to either metal component manufacturers (for application in factory) or installers (for application in the field).
- High performance solar module system for the building envelope, which can be applied to new roofs, during the building process, or retrospectively as an add-on.

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