

3rd October 2023

Catnic® SolarSeam

catnic®



Contents

- ① Benefits of Catnic® SolarSeam
- ② Maximised energy performance
- ③ Product performance
- ④ Guarantees
- ⑤ How to buy your Catnic® SolarSeam roof
- ⑥ Technical support

Benefits of Catnic® SolarSeam



Catnic® SolarSeam

Catnic® SolarSeam is a steel standing seam solar roof, that allows home owners to reap the rewards of **maximum renewable energy** with a **low installation cost***, using technology suited to the UK climate

- ✓ MCS certified solar laminate **blends seamlessly** with the standing seam roof with no impact on the aesthetics
- ✓ **5 times lighter** and **savings** on materials, installation and maintenance when compared to traditional crystalline modules
- ✓ **Factory fitted** solar panels that provide **peace of mind** from a tested and guaranteed system upon registration
- ✓ **Reduced risk** as no leaks from solar mount penetrations; no additional wind loading; vandal, theft and vermin resistant; and durable
- ✓ **Freedom of roof design** suitable for roof pitches down to 5 degrees
- ✓ Available in **profile widths of 514mm or 390mm** in lengths to suit your roof and power requirements.
- ✓ Panels produce **135Wp/m²**
- ✓ Steel profiles are manufactured from Colorcoat Prisma® in **two standard colours**, Anthracite & Slate Grey – others are available on request.
- ✓ All components **manufactured in the UK**, supporting our local economy
- ✓ Also suitable for wall cladding

Sensitivity: general

* Compared to traditional mounted crystalline solar panels



E: catnic.urban@tatasteeeurope.com; Tel: 01244 892449

Catnic® Urban

Catnic® SolarSeam is a perfect combination of our Catnic® Urban steel standing seam roof powered by bonded laminate solar panels

Benefits of Catnic® Urban

- Quick fit system reduces installation time on site compared with traditional roofing products
- Supplied as a complete kit of parts to make your roof purchase as simple as possible
- Suitable for roof pitches as low as 5° making it ideal for extensions
- Seven times lighter than traditional roof tiles
- BBA Approved Roofing & Cladding System
- Available with a robust Confidex® Home Guarantee for 25 years upon online registration
- BRE Green Guide A+ rated product and 100% recyclable at end of life
- Certified to BES 6001 – a responsible sourcing standard equivalent to FSC for wood
- CE Marked to BS EN 14783:2013
- Fully manufactured in the UK

Standard colour range for Catnic® SolarSeam. Others available on request. Request a hand sample for a truer colour representation



Slate Grey (RAL 7012)



Anthracite (RAL 7016)

E: catnic.urban@tatasteeleurope.com; Tel: 01244 892449

Powered by BiPVco

Our solar roof uses CIGS laminated solar modules, certified to MCS 017, that are adhered to the product under factory controlled conditions prior to installation on the property. This provides the following benefits for homeowners when comparing to traditional crystalline solar panels.

- **Savings** on materials such as solar frame, clips and cable trays
- **Savings** on cost of installation as panels are bonded offsite and fitted during a standard roof build
- **Savings** on time on site as only requires one company to install the roof ready for MCS certified contractor to connect the system
- Smooth surface provides **savings** on maintenance costs and the self-cleaning coating helps to keep the module dirt free
- **No additional wind load** as there is no frame, the laminate is bonded directly to the roof profile
- **Vandal and theft resistant** as they are not easy to remove
- **We have software to simulate the expected power output** for your roof in your building's specific location and orientation
- Laminate + adhesive weight = 3.81kg/m²
- Junction type is IP67



CIGS vs Crystalline

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

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

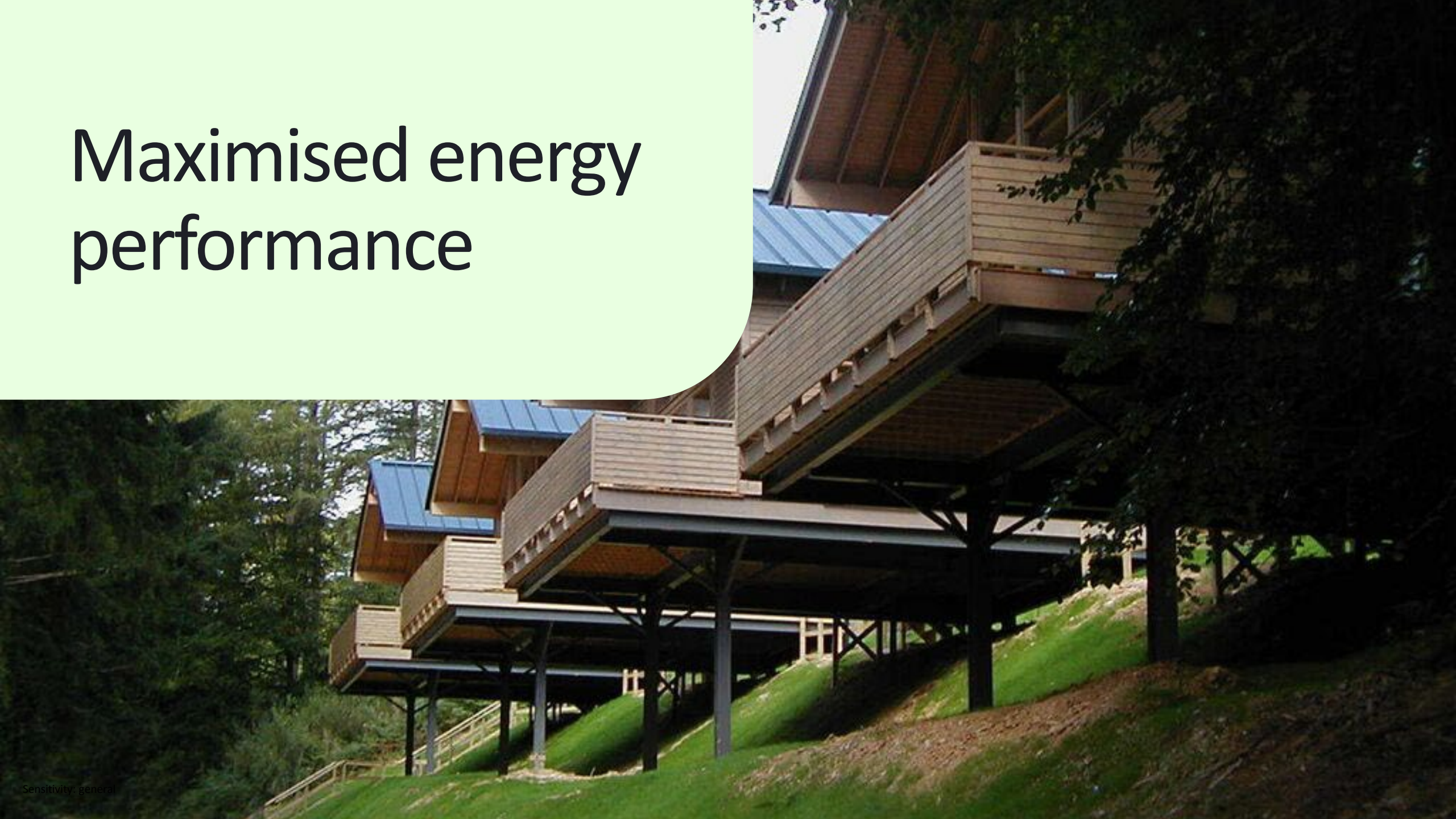
No heavy racking or additional drilling needed – just peel, stick & connect



The facts on weight:

- BiPVco bonded laminate is **5 times** lighter than traditional crystalline modules
- Catnic® SolarSeam is **6.5 times** lighter than traditional roof and crystalline modules
- Catnic® SolarSeam is over **half the weight** of Catnic® Urban with traditional crystalline modules

Maximised energy performance



Maximised Energy Performance

System performance is dependent on a wide variety of factors.

Expected power output

The solar panel will produce approximately **135W/m²** which is lower than monocrystalline panels, but the low light performance and higher possible roof coverage means the expected output can be the same.

We can provide your expected energy output in kWh modelled from simulation software using real world data. Contact us for further information.

Light performance

Solar panel technology allows more light to be captured throughout the day including cloudy days for more consistent, longer periods of energy generation

No need to face south to generate electricity

High shading tolerance due to multiple bypass diode design – if any cells are shaded, the unshaded cells will still perform

Self-cleaning

Energy loss from debris on the panels is minimised as the solar module has a textured self-cleaning top layer, providing superior self-cleaning and minimising glare to enhance light capture and energy performance.

Example of Laminate Requirements for Typical House Energy Usage

Details to achieve average house energy requirement	For 2.1kWp system (Typical 1-2 bed energy usage)	For 3.5kWp system (Typical 3-4 bed energy usage)	For 4.9kWp system (Typical 5 bed energy usage)
Number of lengths of 5067mm BiPVco laminate required	9	15	20
Available roof size required for 390mm profile, m ²	19.25	31.35	44
Available roof size required for 514mm profile, m ²	24.75	41.25	57.75

Product performance



Product performance

Catnic® Urban

- BBA Approved Roofing & Cladding System, certificate 09/4698
- Available with a robust Confidex® Home Guarantee for 25 years upon online registration
- BRE Green Guide A+ rated product and 100% recyclable at end of life
- Responsibly sourced - certified to BES 6001
- CE Marked to BS EN 14783:2013
- When used as part of a roof cladding system, has B roof (t4) performance rating according to CEN/TS 1187 and EN13501-5



BiPVco bonded solar laminate

External fire performance of roofs & roof coverings - Catnic® Urban standing seam roof with an OSB base and BiPVco solar modules has been tested in accordance with CEN/TS 1187-4 and classified as: B ROOF(t4) – this is the highest rating possible - there will be no penetration of the roof system within 60 minutes

All modules are electrically tested before and after being laminated to the Catnic® Urban substrate.

BiPVco solar modules on a Catnic® Urban roof are fully MCS certified

Solar PV testing

- IEC 61646; IEC 61730-1; IEC 61730-2
- MCS 017 (TUV SUD/BABT)
- KIWA

Fire testing

- BS EN ISO 11925-2: 2020
- CEN/TS 1187: 2012 Test 4
- EN 13501-5: 2016. Class BRooft4



Guarantees



Guarantees

Upon online registration, the following guarantees apply

The Roof

Covered by Confidex® Home Guarantee

25-year performance based guarantee.

Guarantees that not more than 5% of the paint on the outward facing side of the product will peel off during the Guarantee Period.

The Solar Panel

Performance and product guarantees provided by BiPVco.

Solar performance guaranteed for 25 years.

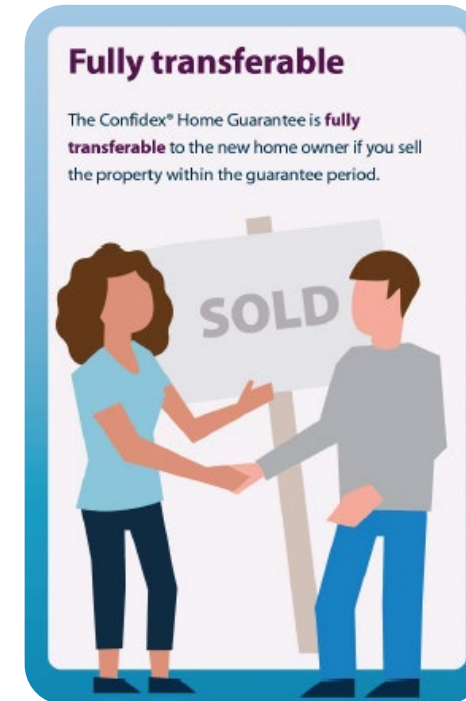
- First 10 years – 90% minimum output rating
- 10-25 years - 80% minimum output

Product guaranteed for 10 years.

Confidex® Home

key features

- Complimentary guarantee when using Colorcoat Prisma® for your Catnic® SolarSeam roof upon online registration.
- Backed by years of worldwide testing giving you confidence in the products.
- Offered directly to you as the home owner to provide one point of contact directly to Tata Steel meaning you get a response quicker in the unlikely event of a claim.
- Is fully transferable should you sell your house within the guarantee period.
- Quick and simple online registration process via online [form](#).
- Proven and used in many houses, schools, football stadiums, supermarkets and retail outlets throughout the UK.
- Valid for Catnic® SolarSeam where the Tata Steel approved bonded solar module has been adhered to the profile, prior to installation, under factory controlled conditions (see terms and conditions).

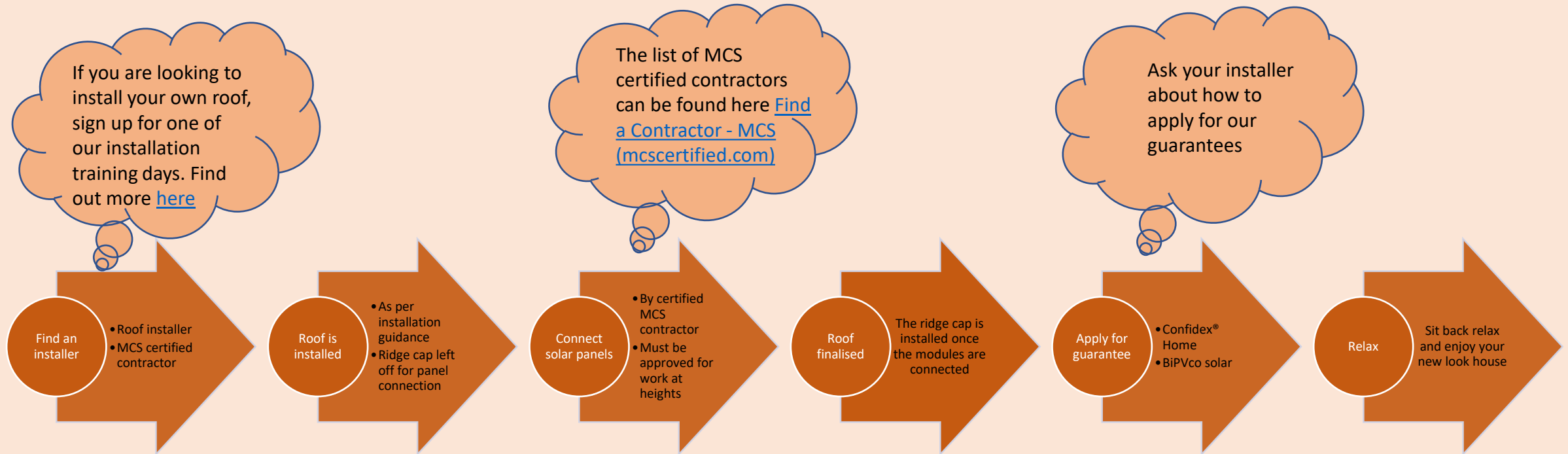


How to buy your Catnic® SolarSeam roof



6 simple steps to owning your solar roof

Making solar simple - Catnic are committed to making your experience as seamless as possible



Technical support





Technical support

Catnic's Technical team can provide:

- A full scheduling service to produce a full take off of all Catnic® Urban panels and ancillaries required for a project
- Comprehensive technical back up on the use and performance of Catnic® Urban and Catnic® SolarSeam
- Project specific design advice.
- A wide range of standard details available in CAD and BIM
- Product installation guidance documents

Schedules provide customers with:

- ✓ Bill of Materials with all exact dimensions
- ✓ Panel cutting list
- ✓ List of ancillary items (flashings, gutters, fascias, etc)
- ✓ Panel laying drawings, detailing start positions and panel identification (ROOF ONLY)
- ✓ Price
- ✓ Square metres
- ✓ Transport and deliveries options

E: catnic.urban@tatasteleurope.com; Tel: 01244 892449



E: catnic.urban@tatasteeleurope.com

Tel: 01244 892449

Care has been taken to ensure that the contents of this publication are accurate, but Tata Steel Europe Limited and its subsidiaries, which includes Tata Steel UK Limited, do not accept responsibility or liability for errors or information that is found to be misleading. Suggestions for, or descriptions of, the end use or application of products or methods of working are for information only and Tata Steel Europe Limited and its subsidiaries accept no liability in respect thereof.

Before using products or services supplied or manufactured by Tata Steel Europe Limited and its subsidiaries, customers should satisfy themselves as to their suitability.

Catnic reserves the right to change information contained within this brochure at any time.

© Copyright 2023 Tata Steel UK Limited