MODERNITE
BY CARBONFUTUREX GROUP

Modernité
By CarbonFutureX® Group

SolarInn® roof tile & Slate



Solar becomes invisible —
yet structurally and energetically essential.

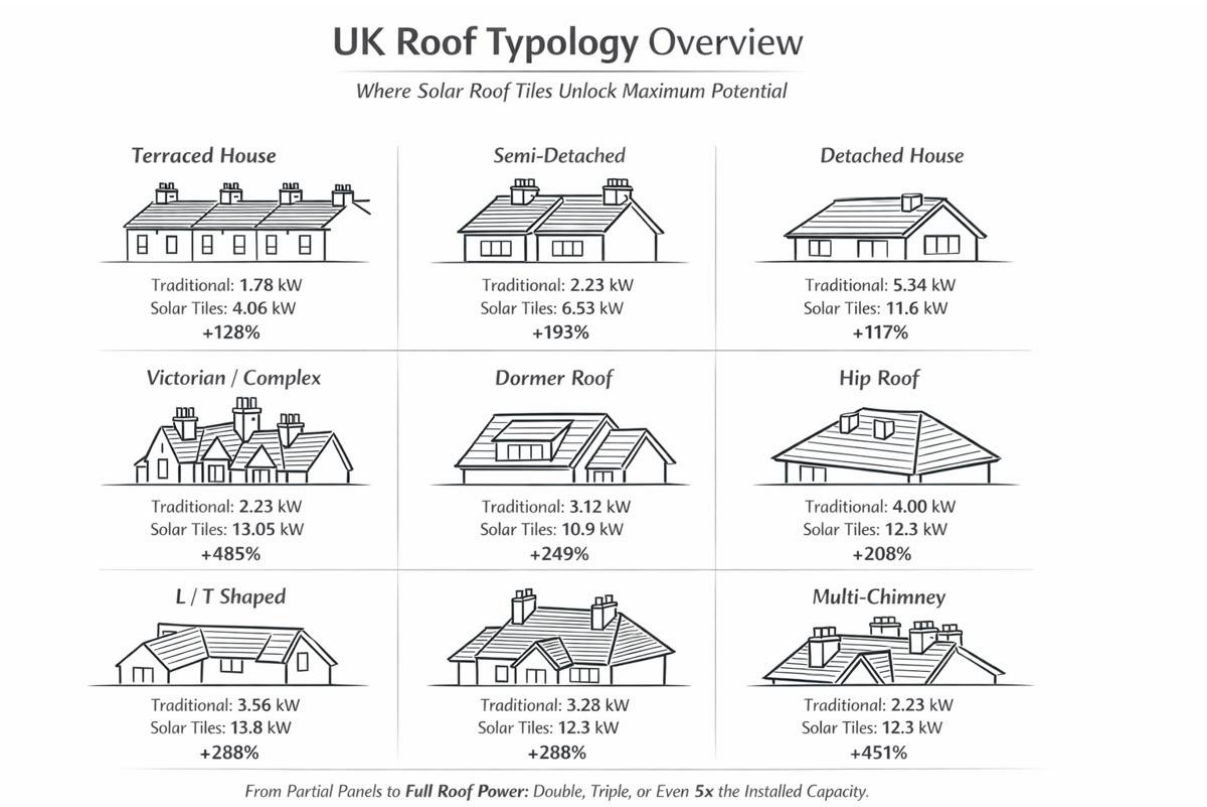
Our Luxury Photovoltaic Roof System redefines architectural roofing by seamlessly integrating premium design with high-efficiency solar power generation. Available in Photovoltaic Roof Slates and Photovoltaic Roof Tiles, this solution offers a sophisticated alternative to traditional solar systems — without compromising the aesthetics of your property.

SOLAR ROOF TILES

More Coverage, More Generation, More Beauty, More Value.

Across typical UK and European residential rooftops, traditional solar panels rely on fixed-size standard modules (e.g. 1.1m × 1.7m). On multi-slope roofs, or roofs with chimneys, skylights and irregular geometries, this leads to significant layout losses and unused space.
CdTe Solar Roof Tiles, with higher surface coverage and flexible layout capability, can typically deliver installed power capacity:

Roof Type	Traditional PV Panels (kW)	Black CdTe PV Tiles (kW)	Grey CdTe PV Tile (kW)	Black Tile Increase	Grey Tile Increase
Terraced	1.78	4.06	2.91	**128%**	**63%**
Semi-Detached	2.23	6.53	4.68	**193%**	**110%**
Detached	5.34	11.6	8.32	**117%**	**56%**
Victorian / Complex	2.23	13.05	9.36	**485%**	**320%**
Dormer Roof	3.12	10.9	7.8	**249%**	**150%**
Hip Roof	4	12.3	8.84	**208%**	**121%**
L / T Shape	3.56	13.8	9.88	**288%**	**178%**
Multi-Chimney	2.23	12.3	8.84	**451%**	**297%**



01 | Architectural Aesthetics
Solar — without looking solar.

This is not a solar installation.
This is architecture with intelligence built in.

From the street, it reads as **natural slate** — refined, timeless, quietly confident.
No visible rails.
No exposed brackets.
No compromise to the roofline.

Only a seamless surface that preserves the integrity of the building.
This is not an addition.
It is integration.

Only a refined roofscape that enhances — rather than interrupts — your home's design.

For Architect-Led and High-End Developments

✓ Planning-sensitive and conservation-friendly
✓ Ideal for premium new builds and luxury renovations
✓ Suitable for listed-adjacent and design-controlled areas
✓ Built to satisfy both energy targets and architectural vision









02 | Greater Installation Area

From Fragmented Panel Zones to Full-Roof Integration
Traditional solar panels are constrained by fixed module dimensions and rigid rectangular layouts.
On real UK and European rooftops — with **chimneys, skylights, dormers and multiple roof slopes — this creates significant unused surface area.**

Why Traditional Panels Leave Roof Space Unused
Conventional PV systems:
Require rectangular arrays
Need safety edge clearances
Require mounting rails and spacing
Cannot efficiently wrap around chimneys or roof features
Often limited to one dominant slope

This means:
1) Traditional panels can only be installed on "regular rectangular areas"
2) A large portion of roof area remains unused

Solar Roof Tiles fundamentally change this equation.
Solar Roof Tile System:

1) The roof itself becomes the power generator
2) Full roof coverage possible
3) Flexible layout around chimneys and skylights
4) No additional structural obstructions
5) Maximised usable surface area
Real-world installation area increase: 117%–485% (depending on roof configuration)
This is not incremental optimisation.
It is a structural transformation of rooftop energy potential.

The Result:
More roof utilised.
More energy generated.
More value created.

More Area = More Energy

Under average UK solar conditions:
Every additional 10 m² of usable roof area can generate:
• 1,200–1,800 kWh per year
• Equivalent to 4,000–6,000 miles of EV driving
• 45–60% of a typical UK household's electricity demand
• Or up to half of an air source heat pump's annual electricity use

Roof Type	Traditional Panels Usable Area (m²)	Solar Roof Tiles Usable Area (m²)	Usable Area Increase
Terraced	12 m²	28 m²	**128%**
Semi-Detached	15 m²	45 m²	**193%**
Detached	37 m²	80 m²	**117%**
Victorian / Complex	15 m²	90 m²	**485%**
Dormer	22 m²	75 m²	**249%**
Hip Roof	28 m²	85 m²	**208%**
L / T Shaped	25 m²	95 m²	**288%**
Multi-Chimney	15 m²	85 m²	**451%**

03 | Superior Low-Light Performance

Solar systems are often tested under ideal laboratory sunlight.
But real rooftops in the UK and Northern Europe operate under very different conditions.
Most of the year, solar generation occurs under:

Overcast skies
Diffuse light conditions
Low winter sun angles
Mixed East–West roof orientations
Moderate summer temperatures

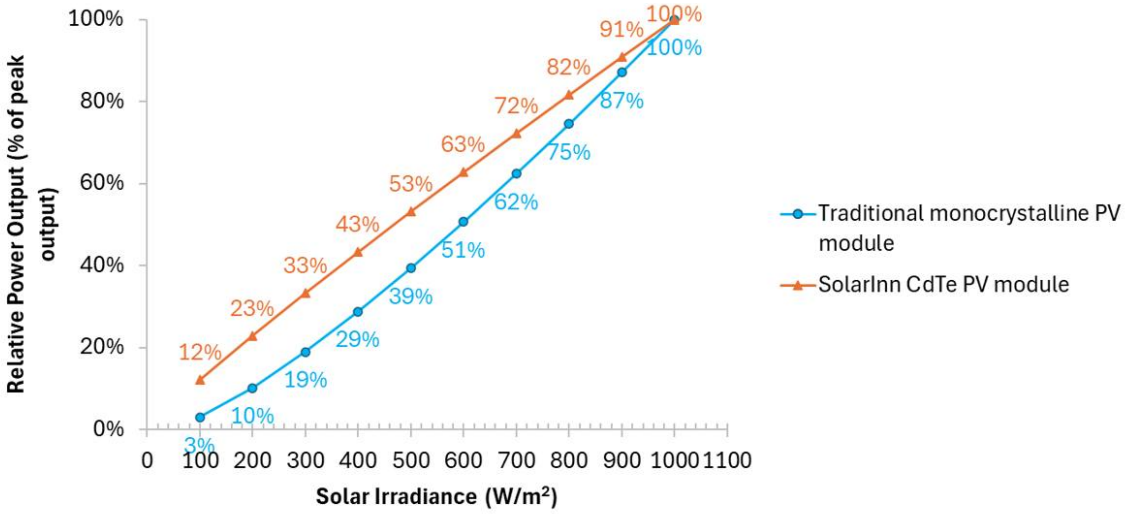
**In Europe, solar performance is not defined by perfect sunshine —
it is defined by how well a system performs on cloudy days.**

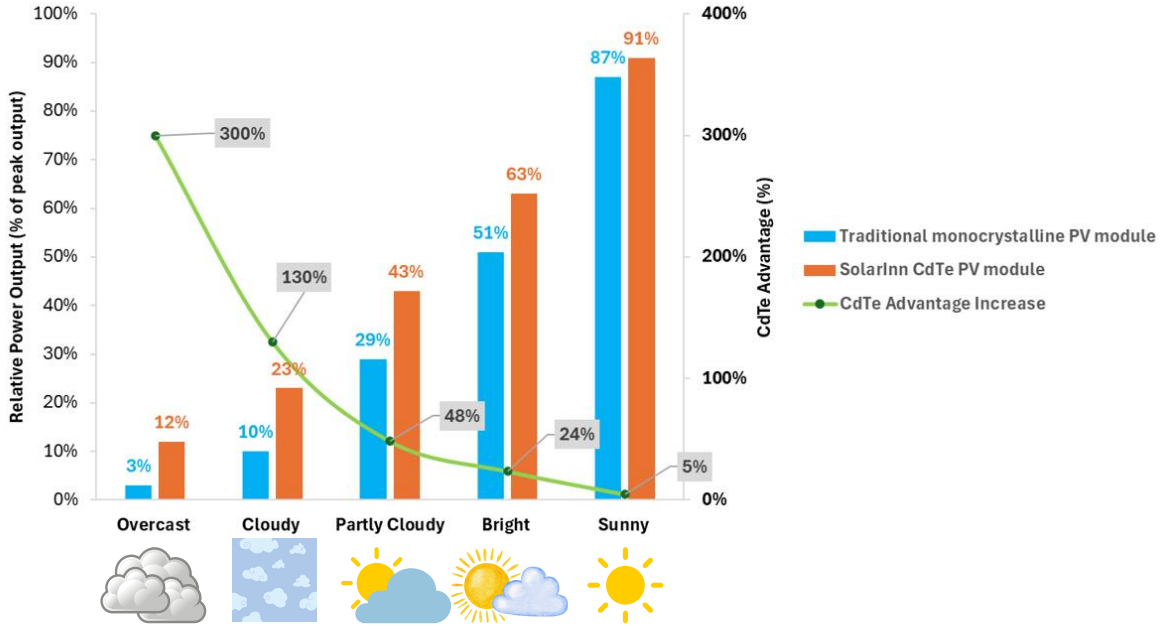
CdTe thin-film technology is inherently better suited to diffuse-light climates.
CdTe thin-film technology offers:

✓ More stable output in cloudy and diffuse conditions
✓ Smoother early-morning and late-afternoon performance
✓ Better temperature coefficient than mono-crystalline silicon
✓ More balanced East-West roof generation

Instead of sharp midday peaks followed by steep drop-offs, generation is more balanced throughout the day.

Performance Under Real Weather Conditions

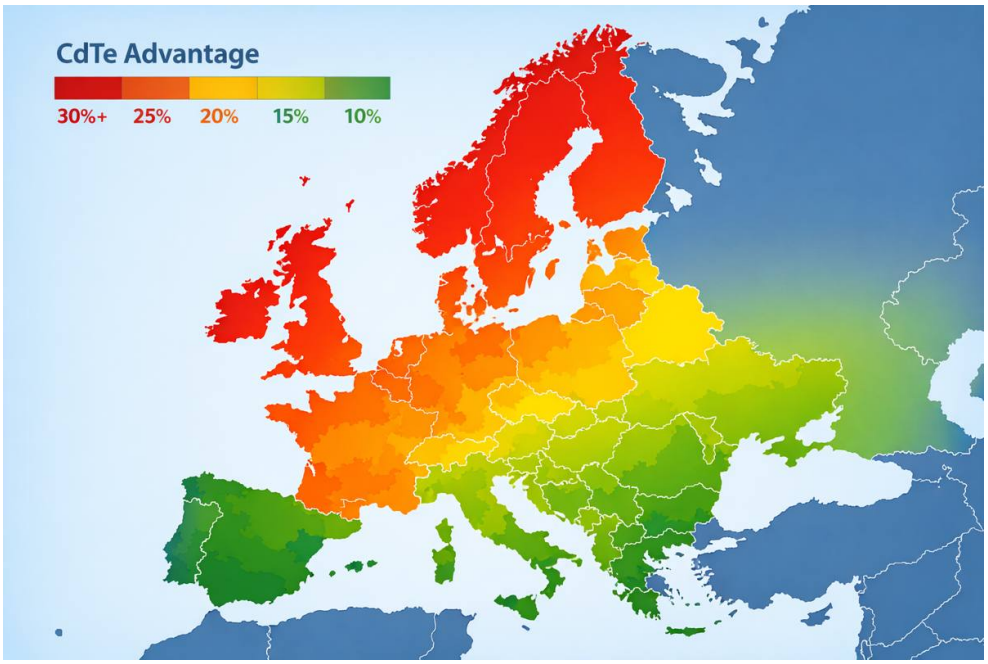




04 | Higher Annual Energy Output

Not About Module Wattage — About System Yield
Even if individual tiles have lower wattage:
Total installed area is greater
Better performance under cloudy conditions
No edge-shading losses from panel arrays
➡ **Higher total annual system output**
➡ **Smoother generation curve**
➡ **Higher self-consumption ratio**
In high-latitude climates,
system-level yield often outperforms conventional add-on PV systems.

CdTe Performance Advantage Map Across Europe



Across Europe, CdTe consistently outperforms mono-crystalline silicon, delivering an average gain of +25–30% in Northern and North-Western Europe, around +20% in Central Europe, and still +6–14% in Southern regions, with its performance advantage increasing as solar irradiation decreases.

Regional Average Performance Comparison

Region	Avg. Mono (kWh/kW)*	Avg. Efficiency Ratio	Avg. CdTe (kWh/kW)*	Avg. Advantage
Northern Europe	850	1.3	1083	30%
North-Western Europe	938	1.26	1170	25%
Central Europe	1069	1.2	1291	20%
South-Eastern Europe	1263	1.14	1438	14%
Southern Europe	1513	1.08	1648	8%

Note: (kWh/kW)* represents annual energy output per kW installed.

Annual electricity generation in the United Kingdom

Across major UK cities, **CdTe consistently delivers significantly higher annual specific yield** compared to mono-crystalline silicon systems.

In **southern cities** such as Exeter, Bristol and London, the gain ranges from **+19% to +21%**, while in the **Midlands** the advantage increases to **+23–24%**.

Moving **further north**, where diffuse irradiation dominates, the performance gap widens substantially — reaching **+30% in Edinburgh, +31% in Glasgow, and up to +33% in Aberdeen**.

The data clearly demonstrates that the lower the irradiation and the higher the proportion of diffuse light, the greater the CdTe advantage — making it particularly well suited to the UK climate.



City	Mono (kWh/kWp)	CdTe (kWh/kWp)	Increase
Exeter	1025	1220	**19%**
Bristol	1000	1205	**21%**
London	1000	1210	**21%**
Cardiff	980	1200	**22%**
Birmingham	975	1198	**23%**
Nottingham	960	1188	**24%**
Leicester	955	1185	**24%**
Manchester	925	1160	**25%**
Liverpool	920	1155	**26%**
Leeds	915	1155	**26%**
Newcastle	900	1145	**27%**
Edinburgh	875	1135	**30%**
Glasgow	850	1110	**31%**
Aberdeen	825	1095	**33%**

Note: (kWh/kW)* represents annual energy output per kW installed.

Annual electricity generation in Nodic Countries

Across major Nordic cities, CdTe demonstrates a consistently strong performance advantage under low-irradiation and high-diffuse light conditions.

While mono-crystalline systems typically generate 830–920 kWh/kWp annually, CdTe increases annual yield to approximately **1085–1195 kWh/kWp**, delivering a stable gain of **+28% to +31%** across **Norway, Sweden, Finland and Denmark**.

The data confirms that in high-latitude climates with long winters and frequent cloud cover, CdTe's diffuse-light response and temperature stability translate directly into higher real-world energy output, making it particularly well suited to the Nordic market.



City	Mono (kWh/kWp)	CdTe (kWh/kWp)	Increase
Oslo	900	1170	30%
Bergen	850	1110	31%
Trondheim	830	1085	31%
Stockholm	900	1170	30%
Gothenburg	880	1145	30%
Malmö	920	1195	30%
Helsinki	850	1110	31%
Tampere	830	1090	31%
Copenhagen	900	1150	28%
Aarhus	880	1125	28%

Note: (kWh/kW)* represents annual energy output per kW installed.

Annual electricity generation in France

Across France, CdTe demonstrates a clear and climate-responsive performance advantage over mono-crystalline silicon systems.

With mono systems typically delivering around 1100 kWh/kWp annually, CdTe increases annual yield to approximately **1310 kWh/kWp**, representing an average gain of **+19% nationwide**.

While southern France benefits from higher direct irradiation, central and northern regions experience more diffuse light conditions — where CdTe's spectral response and temperature stability provide measurable real-world gains.

This makes CdTe not only competitive in high-irradiance zones, but particularly effective across France's mixed climate profile.



City	Mono (kWh/kWp)	CdTe (kWh/kWp)	Increase
Lille	1000	1210	21%
Paris	1050	1250	19%
Nantes	1080	1280	19%
Lyon	1150	1360	18%
Bordeaux	1200	1400	17%
Toulouse	1300	1500	15%
Marseille	1450	1650	14%
Nice	1500	1700	13%

Note: (kWh/kW)* represents annual energy output per kW installed.

Annual electricity generation in German

Germany’s climate is highly favourable for CdTe photovoltaic technology.

Mono-crystalline systems typically generate 950–1100 kWh/kWp per year, while CdTe systems achieve approximately **1175–1330 kWh/kWp**, delivering a consistent advantage of **17%–24%**. The advantage is strongest in northern cities due to higher diffuse light levels, while southern regions still maintain a clear performance gain.

Overall, CdTe offers higher real-world energy yield across Germany under typical operating conditions.



City	Mono (kWh/kWp)	CdTe (kWh/kWp)	Increase
Hamburg	950	1175	24%
Berlin	980	1205	23%
Hannover	975	1200	23%
Cologne	1000	1225	22%
Frankfurt	1050	1280	22%
Stuttgart	1100	1330	21%
Munich	1100	1285	17%

Note: (kWh/kW)* represents annual energy output per kW installed.

Performance Summary of European Countries

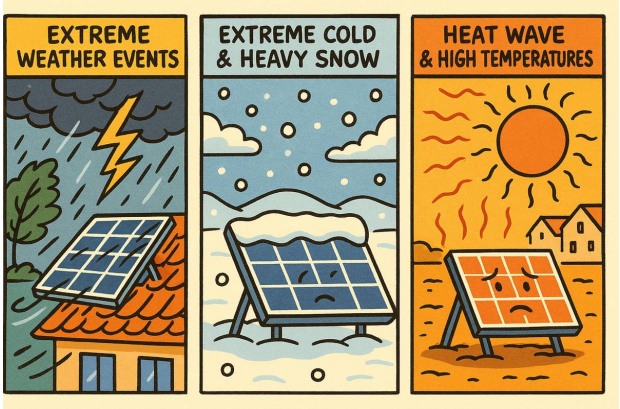
Country	Mono (kWh/kW)	Efficiency Ratio	CdTe (kWh/kW)	Increase
Finland	800	1.32	1050	32%
Norway	850	1.3	1100	30%
Sweden	850	1.3	1100	30%
Ireland	900	1.28	1150	28%
Denmark	900	1.27	1140	27%
UK	950	1.26	1200	26%
Netherlands	950	1.24	1180	24%
Belgium	950	1.24	1180	24%
Poland	1000	1.24	1240	24%
Germany	1000	1.23	1230	23%
Czech Republic	1050	1.21	1270	21%
Switzerland	1100	1.2	1320	20%
France	1100	1.19	1310	19%
Austria	1150	1.18	1360	18%
Slovakia	1100	1.18	1300	18%
Hungary	1250	1.16	1450	16%
Romania	1200	1.15	1380	15%
Slovenia	1200	1.15	1380	15%
Bulgaria	1300	1.14	1480	14%
Croatia	1350	1.12	1510	12%
Italy	1450	1.11	1610	11%
Spain	1500	1.08	1620	8%
Portugal	1550	1.07	1660	7%
Greece	1600	1.06	1700	6%

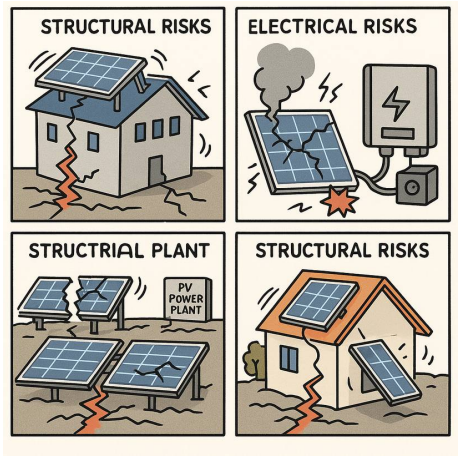
Note: (kWh/kW)* represents annual energy output per kW installed.

05 | Structural Integrity & Durability

Conventional PV Panel is fragile under storms, floods, snow, heatwaves, and earthquakes due to structural vulnerability & electrical fragility.

1. Extreme Weather
⛈️ **Storms / Hurricanes**: Panels blown off, shattered → blackout
🌨️ **Snow / Freezing Cold**: Snow cover → zero generation
☀️ **Heatwaves**: Efficiency drops (-0.3–0.5% per °C) → power gap during peak demand





2. Seismic Risk
Structural: Panel breakage, rack collapse
Electrical: Cable/junction box damage → short-circuit, fire
Systemic: Large plants may fail entirely; rooftop PV may fall and cause secondary hazards

SolarInn PV tiles Engineered for long-term reliability under diverse European climate conditions.

Laminated safety glass construction ensures **structural strength**, **impact resistance**, and **enhanced safety in the event of breakage**. The system is designed to withstand **high wind loads, heavy snow loads, and temperature fluctuations** commonly experienced across Europe, from coastal regions to alpine environments.

The fully integrated roof-grade **waterproofing design** provides long-term protection against rain, snow, and moisture ingress, ensuring stable performance in humid, cold, and variable climates.

With a **25-year performance warranty**, the system meets European structural and durability expectations, making it suitable for applications across the UK, Germany, France, Nordic countries, and other regions with demanding environmental conditions.

Why Solar Roof Tiles Outperform Traditional Panels

Comparison	Traditional Panels	SolarInn Roof Tiles
Installation	Partial add-on	Full roof integration
Usable Area	Restricted	Maximised
Appearance	External equipment	Architectural integration
Annual Yield Potential	Moderate	Higher
Wind Risk	Increased due to mounting	Integrated into roof structure
Property Value	Standard	Significantly enhanced

Turning the Roof into a Power Asset

Solar roof tiles do not sit on top of the roof —
they replace conventional roofing materials.

✓ **Fully replace traditional tiles**
✓ **Flexible layout around chimneys and skylights**
✓ **Not limited by rigid panel arrays**
✓ **No external mounting system**

The entire roof becomes a power station.

More Than an Energy System

It is a property upgrade.

✓ **Improved EPC rating**
✓ **Reduced long-term energy costs**
✓ **Enhanced resale attractiveness**
✓ **Future-proofed for net-zero regulations**

Your home is no longer just an energy consumer.
It becomes a generating asset.

Preserving Heritage While Enabling Energy Transition

For Victorian and heritage properties:

✓ **No intrusive panels**
✓ **Preserves original architectural character**
✓ **Maintains traditional roof appearance**
✓ **Enables modern energy independence**

This is how historical architecture enters the net-zero era.

Products Series and Sizes

Grand Flat Series

CdTe Module Size: 400mm × 600mm;
Tile Size: 480mm × 670mm





Small Flat Series

CdTe Module Size: 300mm × 400mm;
Tile Size: 370mm × 480mm





Grand Classic Series

CdTe Module Size: 400mm × 1200mm;
Tile Size: 450mm × 1250mm





Small Classic Series

CdTe Module Size: 240mm × 800mm;
Tile Size: 290mm × 840mm





Products Specification

1. Grand Flat Series



Datasheet

	Standard PV Tile	Monochrome PV Tile	Textured PV Slate
Structure (mm)	3.2CdTe+0.5EVA+3.2	3.2+0.5EVA+3.2CdTe+0.5EVA+3.2	3.2+0.5EVA+3.2CdTe+0.5EVA+3.2
Colour	Marble black	Dusty Grey (Standard) (9 Alternative options, Page 21)	Natural Slate Grey (Standard) (9 Alternative options, Page 22)
Glass thickness (mm)	6.9	10.6	10.6
CdTe Module Size	**400mm length × 600mm width**		
Whole Tile Size	**480mm length × 670mm width**		
Slate thickness (mm)	33.0	33.0	33.0
Weight (kg)	6.5	8.5	8.5
Nominal Peak Power Output (Wp)	34.5	25.0	23.0
Module efficiency under 1000W/m2 solar radiation (25°C, AM1.5)	14.4%	10.4%	9.6%
Conversion efficiency under 200W/m2 solar radiation (25°C, AM1.5)	17.7%	12.8%	11.8%
Glass Type	Laminated Glass		
Power generation performance guarantee	85% performance remaining after 25 years		
Lifespan	30 years		

Products Specification

2. Small Flat Series





Datasheet

	Standard PV Tile	Monochrome PV Tile	Textured PV Slate
Structure (mm)	3.2CdTe+0.5EVA+3.2	3.2+0.5EVA+3.2CdTe+0.5EVA+3.2	3.2+0.5EVA+3.2CdTe+0.5EVA+3.2
Colour	Marble black	Dusty Grey (Standard) (9 Alternative options, Page 21)	Natural Slate Grey (Standard) (9 Alternative options, Page 22)
Glass thickness (mm)	6.9	10.6	10.6
CdTe Module Size	**300mm length × 400mm width**		
Whole Tile Size	**370mm length × 480mm width**		
Slate thickness (mm)	33.0	33.0	33.0
Weight (kg)	3.5	4.5	4.5
Nominal Peak Power Output (Wp)	18.0	12.6	12.0
Module efficiency under 1000W/m2 solar radiation (25°C, AM1.5)	15.0%	10.5%	10.0%
Conversion efficiency under 200W/m2 solar radiation (25°C, AM1.5)	18.5%	12.9%	12.3%
Glass Type	Laminated Glass		
Power generation performance guarantee	85% performance remaining after 25 years		
Lifespan	30 years		

Products Specification

3. Grand Classic Series



Datasheet

	Standard PV Tile	Monochrome PV Tile	Textured PV Slate
Structure (mm)	3.2CdTe+0.5EVA+3.2	3.2+0.5EVA+3.2CdTe+0.5EVA+3.2	3.2+0.5EVA+3.2CdTe+0.5EVA+3.2
Colour	Marble black	Dusty Grey (Standard) (9 Alternative options, Page 21)	Natural Slate Grey (Standard) (9 Alternative options, Page 22)
Glass thickness (mm)	6.9	10.6	10.6
CdTe Module Size	**1200mm length × 400mm width**		
Whole Tile Size	**1250mm length × 450mm width**		
Slate thickness (mm)	44.0	44.0	44.0
Weight (kg)	11.5	15.4	15.4
Nominal Peak Power Output (Wp)	75.0	52.5	50.0
Module efficiency under 1000W/m2 solar radiation (25°C, AM1.5)	15.6%	10.9%	10.4%
Conversion efficiency under 200W/m2 solar radiation (25°C, AM1.5)	19.2%	13.4%	12.8%
Glass Type	Laminated Glass		
Power generation performance guarantee	85% performance remaining after 25 years		
Lifespan	30 years		

Products Specification

4. Small Classic Series



Datasheet

	Standard PV Tile	Monochrome PV Tile	Textured PV Slate
Structure (mm)	3.2CdTe+0.5EVA+3.2	3.2+0.5EVA+3.2CdTe+0.5EVA+3.2	3.2+0.5EVA+3.2CdTe+0.5EVA+3.2
Colour	Marble black	Dusty Grey (Standard) (9 Alternative options, Page 21)	Natural Slate Grey (Standard) (9 Alternative options, Page 22)
Glass thickness (mm)	6.9	10.6	10.6
CdTe Module Size	**800mm length × 240mm width**		
Whole Tile Size	**840mm length × 290mm width**		
Slate thickness (mm)	44.0	44.0	44.0
Weight (kg)	4.5	6.1	6.1
Nominal Peak Power Output (Wp)	30.0	21.0	20.0
Module efficiency under 1000W/m2 solar radiation (25°C, AM1.5)	15.6%	10.9%	10.4%
Conversion efficiency under 200W/m2 solar radiation (25°C, AM1.5)	19.2%	13.4%	12.8%
Glass Type	Laminated Glass		
Power generation performance guarantee	85% performance remaining after 25 years		
Lifespan	30 years		

Electrical Specifications

Test Under Standard test conditions (STC): 1000W/m², 25°C, AM1.5

Model Types (Specifications Standard test conditions(STC):1000W/m², 25°C, AM1.5)	Standard Grand Flat PV Tile	Standard Small Flat PV Tile	Standard Grand Classic PV Tile	Standard Small Classic PV Tile
Power Generation Glass Size (mm)	**400 × 600**	**300 × 400**	**1200 × 400**	**800 × 240**
Maximum Power Pm(W)	34.5	18.0	75.0	30.0
Open Circuit Voltage Voc(V)	53.90	45.70	45.70	92.78
Short Circuit Current Isc(A)	0.89	0.54	2.30	0.46
Peak Power Voltage Vmp(V)	44.04	36.52	36.52	72.32
Peak Power Current Imp(A)	0.78	0.48	2.05	0.41
Maximum System Voltage Vsys(V)	1000			
Temperature Coefficients of Isc Tkα(%/°C)	+0.061			
Temperature Coefficients of Voc Tkβ(%/°C)	-0.396			
Temperature Coefficients of Pm Tkγ(%/°C)	-0.189			
Operating Temperature Range(°C)	-40 to +85			
Ingress Protection Level	IP67			

Regulations compliance

IEC 61215:2016 IEC 61730:2016 BS EN 13501-5 UK MCS 010

Other Features

- **Ultra-low Carbon Footprint (Embodied Carbon Intensity)**

Producing 1W of CdTe solar glass generates only 0.29 kg CO_2e – an ultra-low carbon footprint.

- **Ultra-low Carbon Intensity of Power Generation (Emission Factor)**

Generating 1 kWh of electricity with CdTe solar releases just 0.011 kg CO_2e – far cleaner than average UK power station (0.280kg CO_2e) and silicon PV(0.067kg CO_2e)

- **Thermal Durability**

Thermal cycling (-40°C to +85°C, 200 cycles, ≤5% power degradation)

- **Fire Safety**

Passed the A-level fire test, the highest fire rating in Europe and the USA

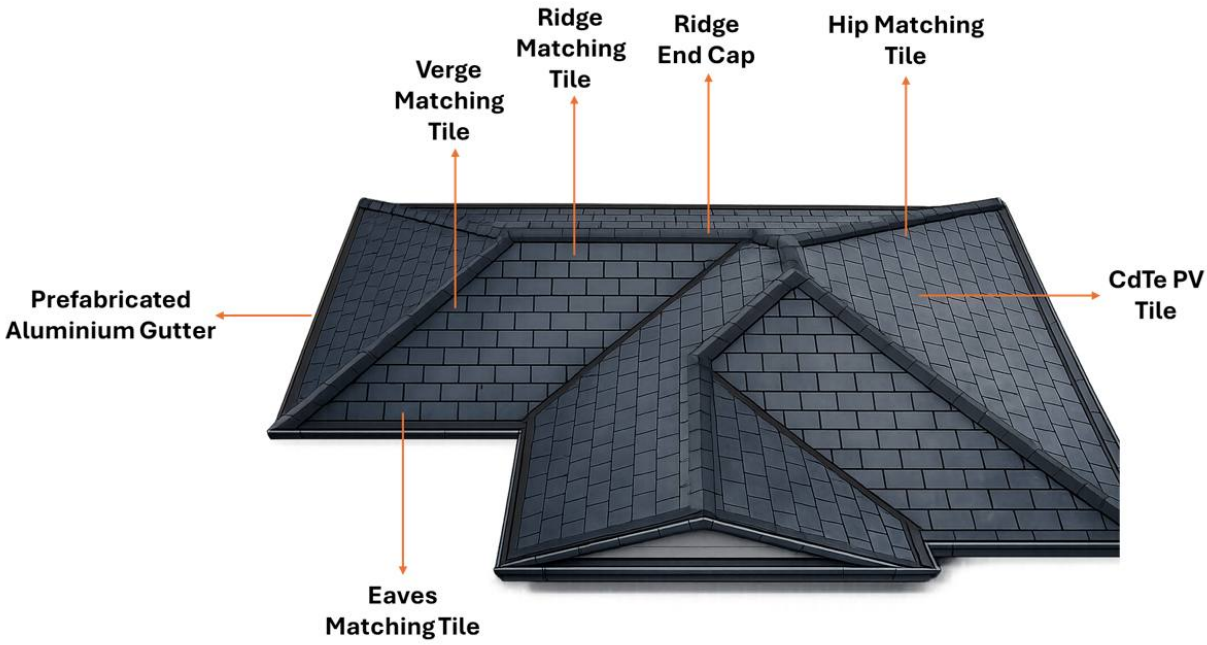
- **Outstanding Hail Impact Resistance**

Tested under 25 mm ice ball at 23 m/s, IEC 61215 compliant

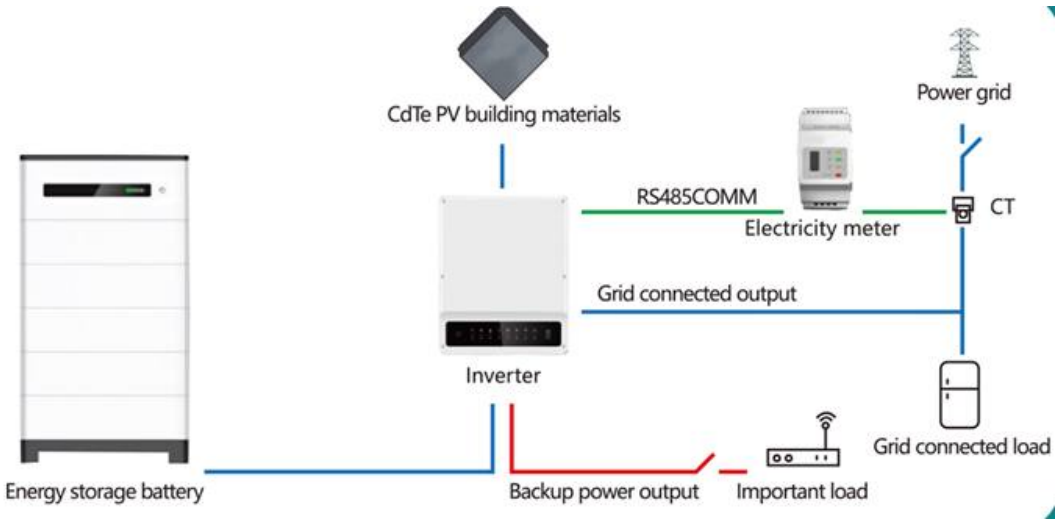
- Excellent wind and snow load resistance

Fully compliant with IEC -2400 Pa/+5400Pa wind load standards

Package Materials



CdTe PV Tile
Verge Matching Tile: Al-Mg-Mn Metal Rock Tile
Eaves Matching Tile: Al-Mg-Mn Metal Rock Tile
Ridge Matching Tile: Al-Mg-Mn Metal Rock Tile
Ridge End Cap
Hip Matching Tile: Al-Mg-Mn Metal Rock Tile
Tile Battens including Counter Battens: High-Strength Galvalume Steel
Prefabricated Aluminium Gutter

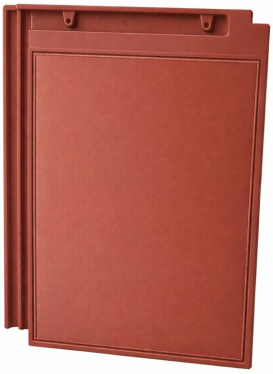


Popular Monochrome Tile Colour Collection

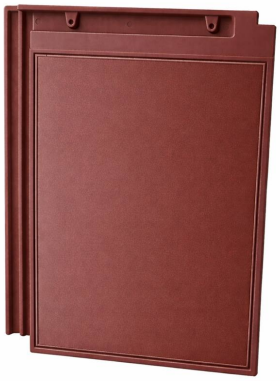
Red Tile series



Terracotta Tile
RAL:8004



Brick Red Tile
RAL:3011

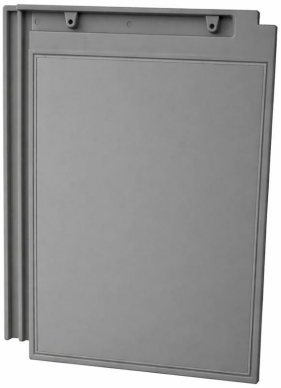


Burgundy Tile
RAL:3009

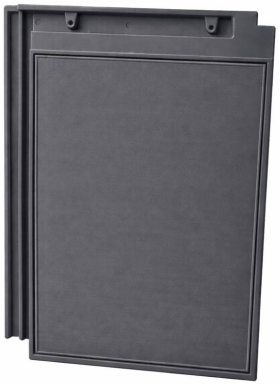
Grey Tile series



Silver Grey Tile
RAL:RAL 9006

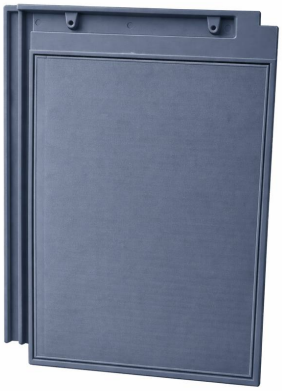


Dusty Grey Tile
RAL:RAL 7040

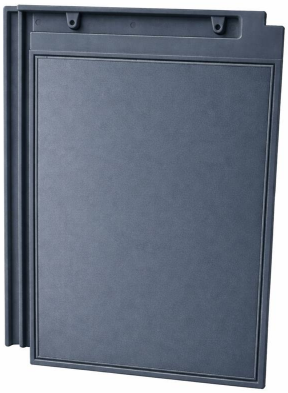


Graphite Grey Tile
RAL:RAL 7024

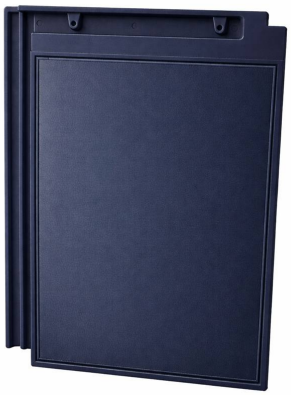
Blue Tile series



Blue Grey Tile
RAL:RAL 7031



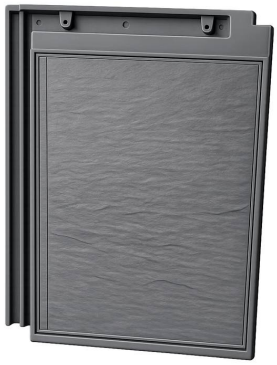
Steel Blue Tile
RAL:RAL 5011



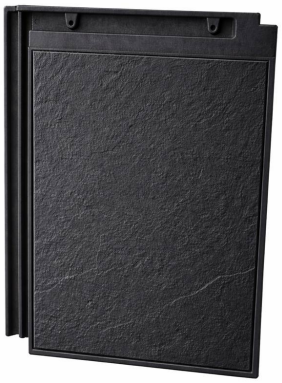
Night Blue Tile
RAL:RAL 5022

Popular Textured Slate Colour Collection

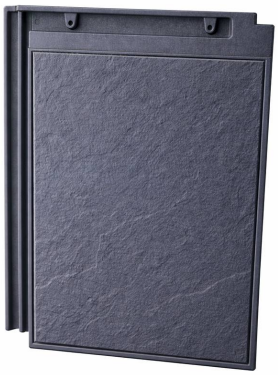
Modern Slate Series



Graphite Slate
RAL:7024

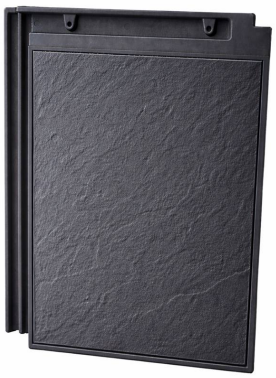


Slate Black
RAL:9005

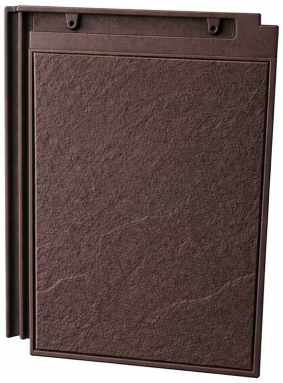


Slate Blue Grey
RAL:5011

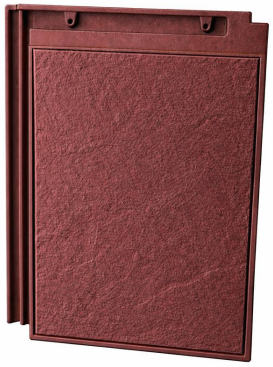
Heritage Slate Series



Natural Slate Grey
RAL:7031

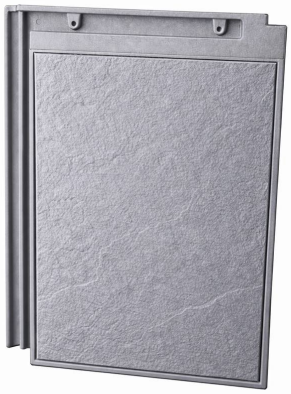


Slate Brown
RAL:8019

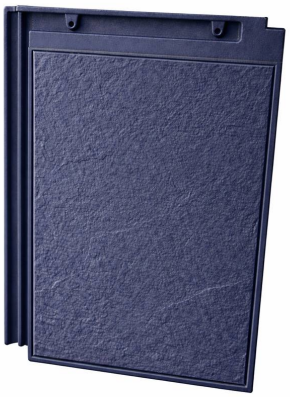


Slate Oxide Red
RAL:3009

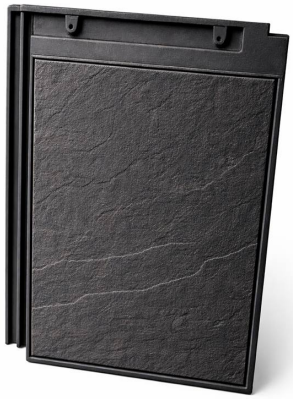
Luxury Slate Series



Silver Slate
RAL:9007



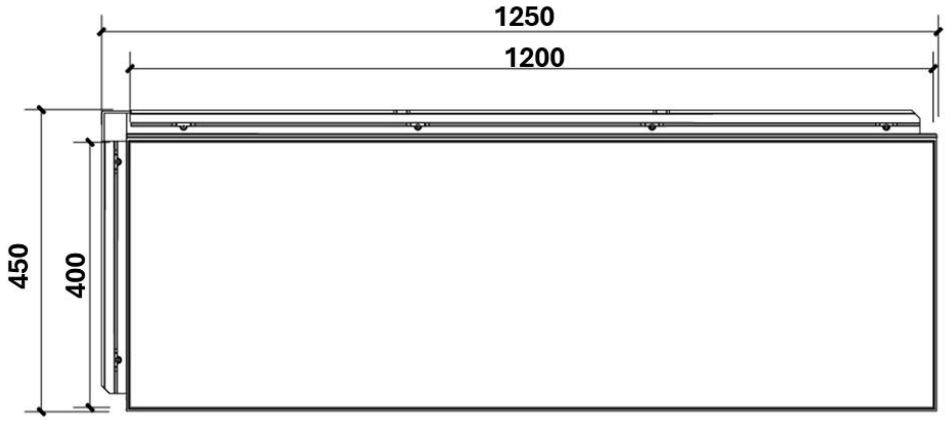
Ocean Slate Blue
RAL:5022



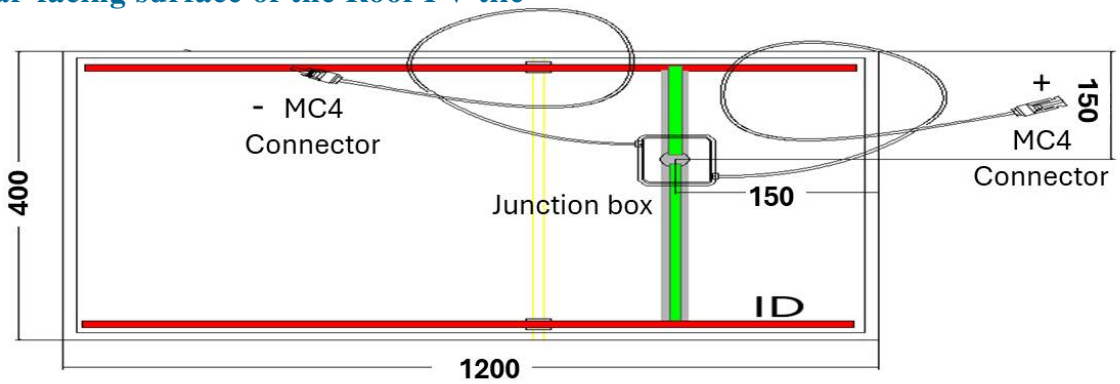
Volcanic Slate
RAL7021

SolarInn PV Roof Slate Installation System Node

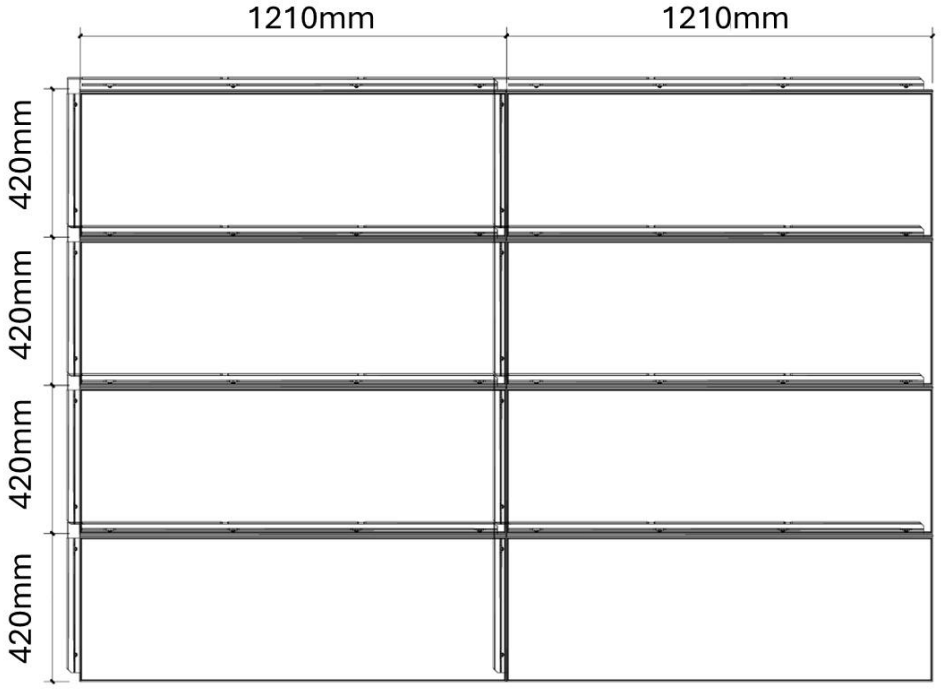
Sun-facing surface of the Roof PV tile



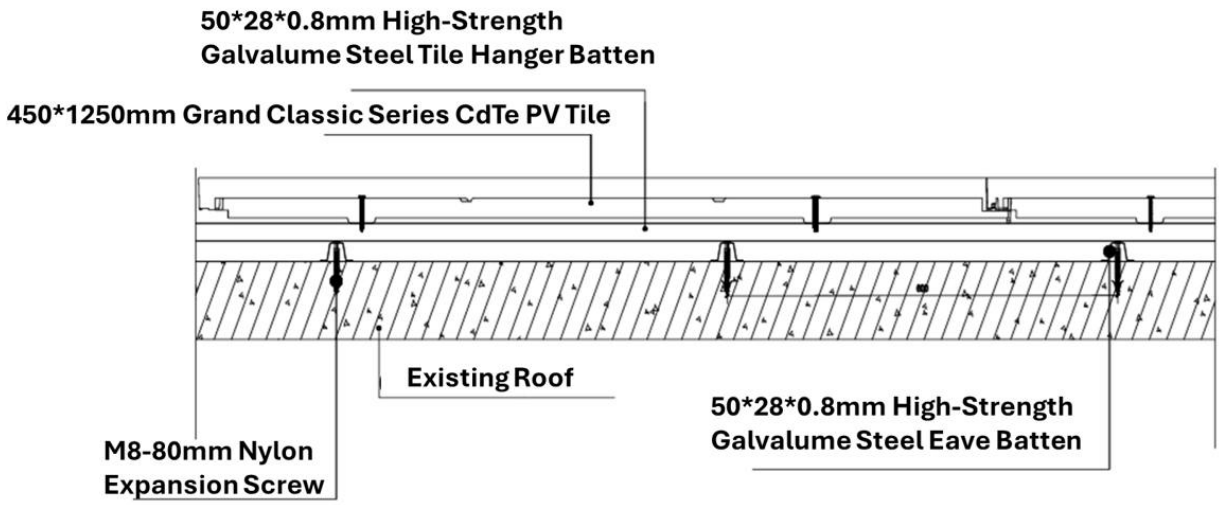
Rear-facing surface of the Roof PV tile



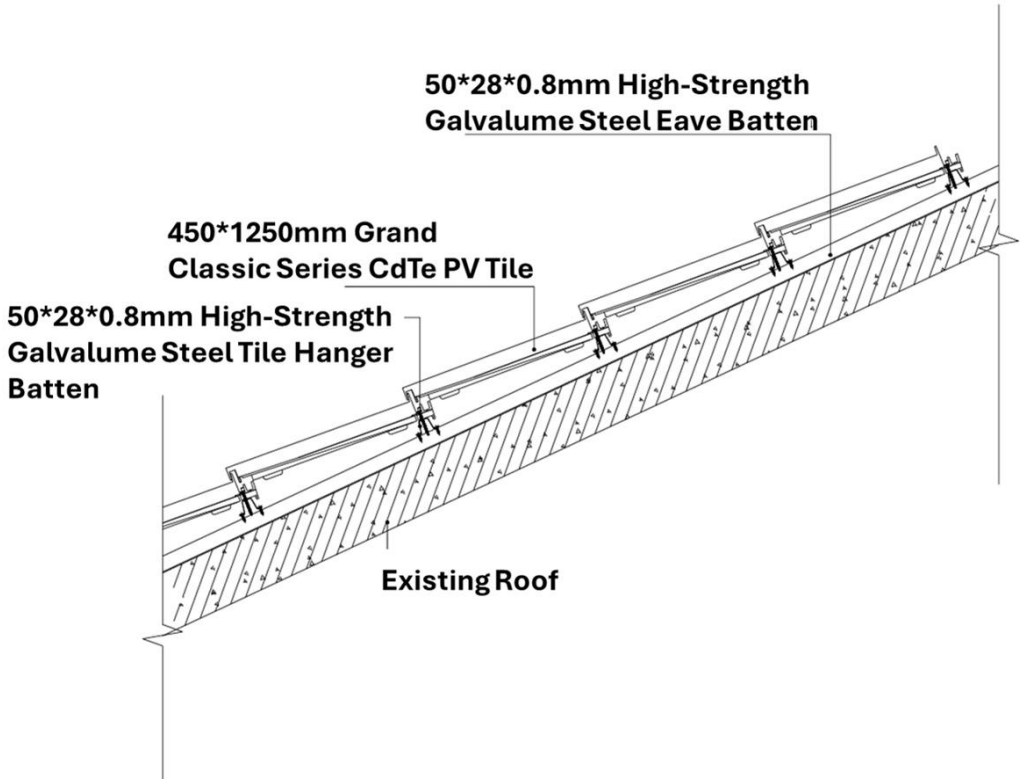
General Arrangement (GA) Drawing – Roof PV Tile Array Layout



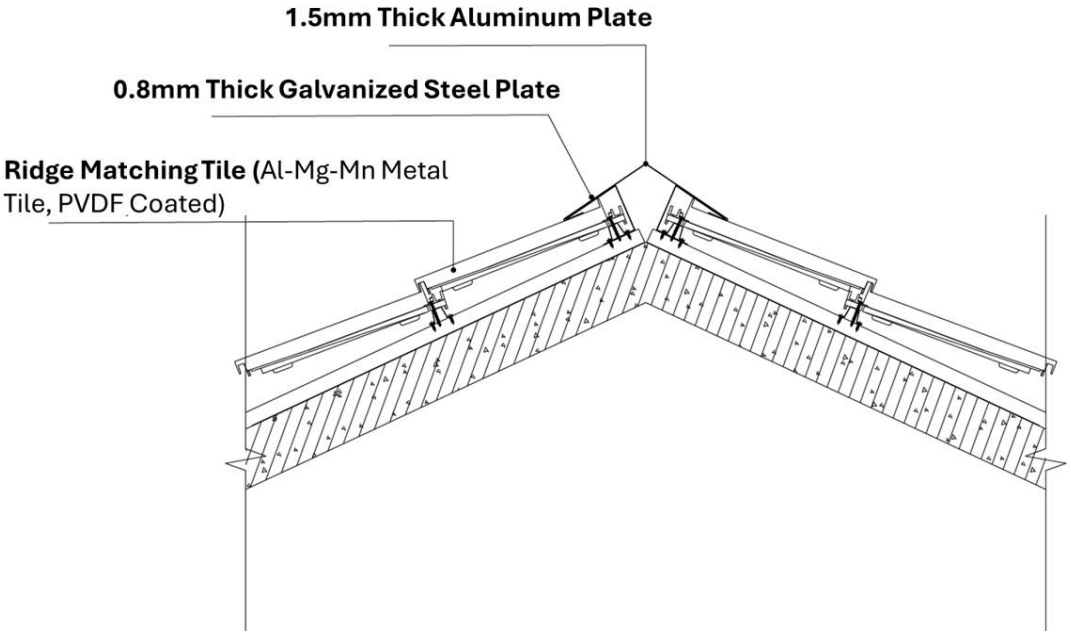
Cross-Sectional View – CdTe PV Tile Roof System Installation Detail



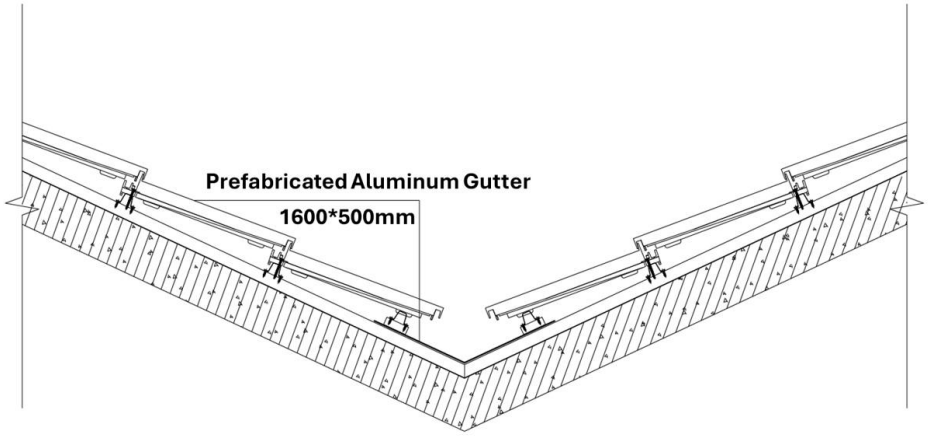
Longitudinal-Sectional View – CdTe PV Tile Roof System Installation Detail



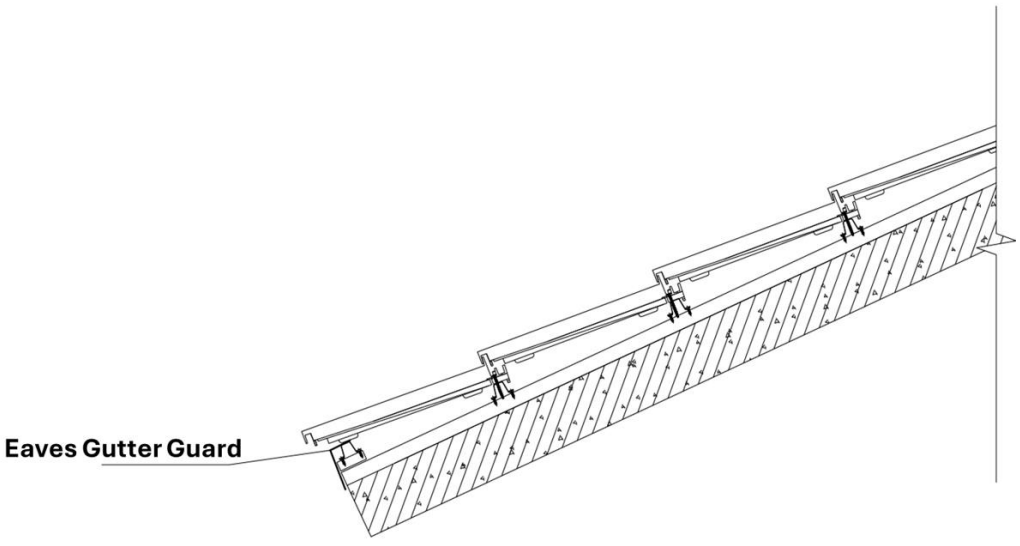
Ridge-Sectional View – CdTe PV Tile Roof System Installation Detail



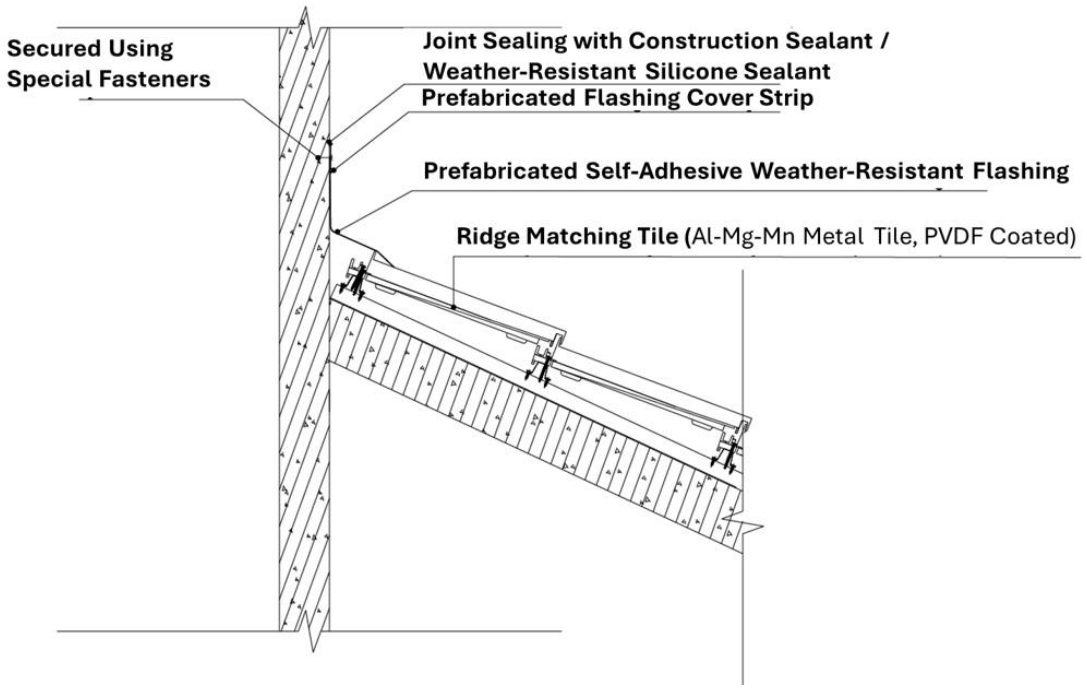
Valley-Sectional View – CdTe PV Tile Roof System Installation Detail



Eave-Sectional View – CdTe PV Tile Roof System Installation Detail



Wall Abutment Installation Detail – PV Tile System



Designed to install like traditional slate roofing — with integrated solar performance.

The SolarInn PV Roof Slate system follows the same installation logic as conventional natural slate or metal roof slates. PV slates and matching non-PV slates are manufactured in identical dimensions, allowing roofers to lay them using familiar methods and tools.

The system is installed onto:

- Timber roof deck (wooden roof structure)
- Breathable membrane
- Counter battens and tile battens
- Mechanical fixing in line with standard slate roofing practice

No external mounting rails.
No overlaid panel brackets.
No visible solar framing systems.

Electrical cabling is concealed beneath the slate layer, maintaining the appearance and detailing of a traditional pitched roof, including ridge, hip, verge and eaves integration.

Key Advantages

✓ Installed using conventional slate roofing techniques
✓ Compatible with standard UK roof build-ups
✓ Reduced learning curve for roof contractors
✓ Faster retrofit integration
✓ Preserves heritage and architectural character

SolarInn Roof PV Tile is not a panel added onto a roof — it is a roof that happens to generate electricity.

Portfolio













WHERE THERE IS LIGHT,
THERE IS POWER

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