



Clearline  
fusion

roof integrated solar PV





Avonside Renewables



The Phoenix Works



Photon Energy



Ecoltek Wales

Clearline  
fusion  
solar never  
looked  
so good

# Clearline

## fusion

As solar power moves beyond government subsidy to become a home improvement option, its kerb-appeal is becoming more and more important. Now, integrated solar has come of age. With Clearline Fusion, the highest quality and aesthetics now come at a price competitive with rack-mounted above-roof solar.

### Why Roof Integration?

Roof integrated solar has always been the obvious choice when refurbishing or building a new roof. Clearline Fusion brings high quality roof integration within reach for retrofit applications. Now more people can benefit from the advantages of going in-roof.

- **Aesthetics**  
Roof integrated panels sit lower to the roofline without brackets and racking on show to look like an intended part of the roof.
- **Roof maintenance**  
The roof covering can be easily maintained or replaced without the cost of dismantling a solar installation.
- **Differentiation**  
Set yourself apart from identikit above roof systems.



### Why Clearline Fusion?

- **Economical**  
Price is comparable with above-roof systems.
- **Rapid**  
Installation times of less than 1 hour per kilowatt-peak are easily attainable. Our patented connection method means that panels are simply pushed together to create a weather-tight and secure fixing.
- **Compact**  
Industry-leading panel spacing. The gap between rows is only 5mm. Columns are spaced by 30mm.
- **Sleek**  
Invisible clamps give an uncluttered aesthetic. Panel spacing is automatically set to give consistently accurate shut-lines.
- **Simple**  
Fusion achieves exceptional fire performance, wind resistance and weather tightness without extra roof battens, adhesive flashing rolls or fire proofing materials. Everything you need is right there in the kit.
- **Robust**  
Certified wind resistance is more than four times higher than competitor products.
- **Universal**  
Works with all commonly used tiles and slates including fixings for sarking.



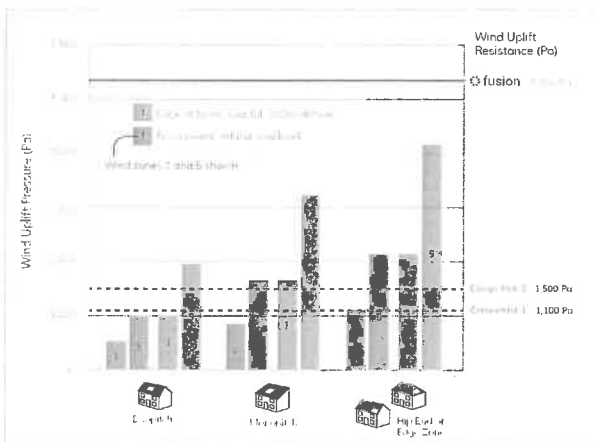
## Specification

Thickness	mm	69
Static roof loading (distributed)	kg / m <sup>2</sup>	12.9
Characteristic Wind Resistance	kPa	5.32
Ultimate Design Load <sup>1</sup>	kPa	5.32
Fire Rating to BS 476-3		AA
Standards		MCS012
Roof pitch		20 - 60°
Compatible roof coverings	Plain tile, Interlocking tile, Natural and artificial slate	

<sup>1</sup> Design resistance to ultimate loads includes a partial material safety factor of 1.0



## Wind Loads



Wind uplift pressures are higher when solar is roof integrated and the wind resistance of some integration products is not high enough even for low-rise scenarios (see chart).

The certified wind resistance for Clearline Fusion is more than four times higher than competitor products and ready for even the most exposed locations.

## Clearline fusion

Industry leading  
5mm spacing

Clearline PV16

Aluminium push fit  
flashing for durability  
and high fire rating

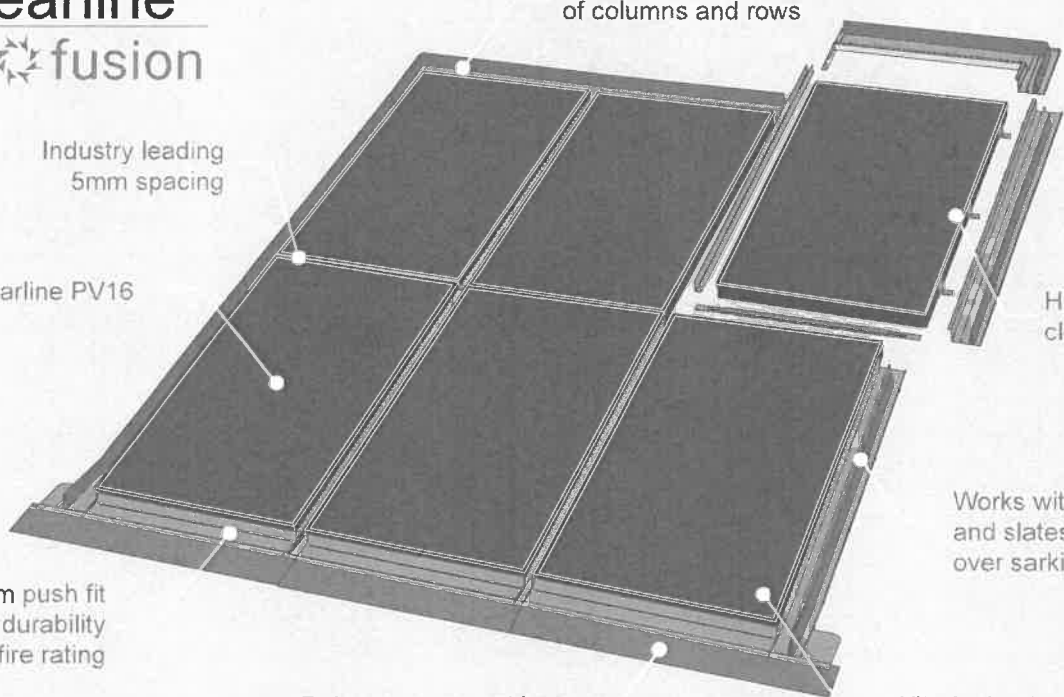
Robust corrugated lead  
resists wind uplift

Extends to any number  
of columns and rows

Hidden fixings for  
clean aesthetic

Works with all common tiles  
and slates including slates  
over sarking.

Kits for landscape and  
portrait orientation, and  
non-rectangular arrays



# solar never looked so good



available from

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Papworth,  
Cambridge UK CB23 3GY

Tel 01480 839 865  
[enquiries@viridiansolar.co.uk](mailto:enquiries@viridiansolar.co.uk)



solar never looked so  
good

## Roof Integrated solar PV

As solar power moves beyond government subsidy to become a home improvement option, its kerb-appeal is becoming more and more important. Integrated solar has come of age, and with Clearline Fusion the highest quality and aesthetics now come at a price competitive with above-roof solar.

Roof integrated solar has always been the obvious choice when refurbishing or building a new roof. Clearline Fusion also brings high quality roof integration within reach for retrofit applications. Now more people can benefit from the advantages of going in-roof.



## Integrated Solar

Better looking, better for roof maintenance, why would you do it any other way?

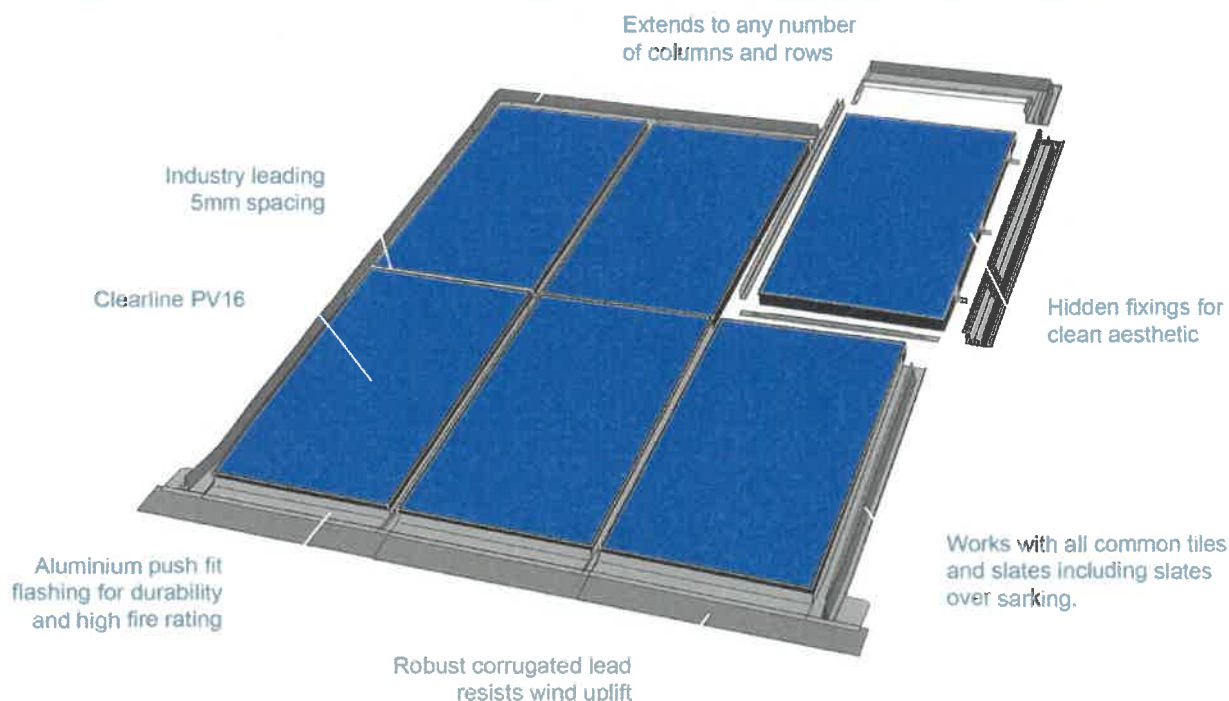
[solar-products-benefits-of-roof-integration.html](#)

## Clearline fusion

### Why Choose fusion?

- Economical - price comparable with above-roof installation
- Rapid - push-fit connections create weather-tight and secure fixing
- Compact - industry leading panel spacing packs in more power
- Sleek - invisible clamps for uncluttered aesthetic
- Simple - no need for roof modifications
- Robust - wind resistance is more than four times higher than competitor products
- Universal - works with slate and tile

[What Customers Say \(solar-products-roof-integrated-pv-endorsements.html\)](#)



## Rapid and Simple

Fusion achieves the highest fire rating and exceptional wind resistance without the need to purchase extra roofing battens or to modify the roof below to have a fire rating.

A patented connection method means that panels simply slide together to create a weathertight seal and roof fixing.

Installation times of below 1 hour per kWp are easily achieved.

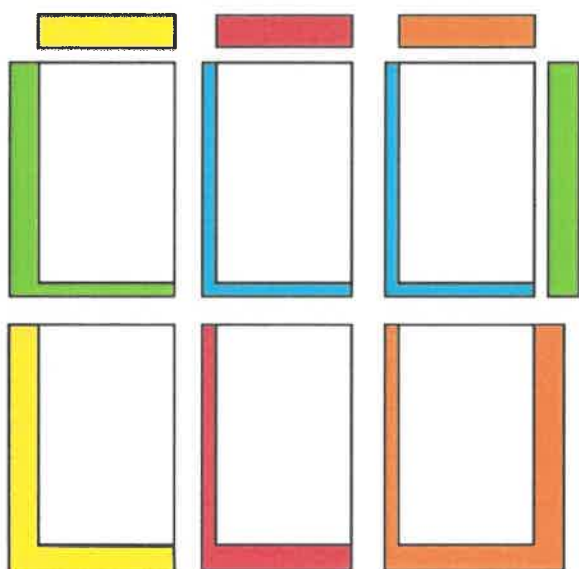
## Panel Options

Monocrystalline silicon on a black backing, or Polycrystalline on black or white. There's a Clearline fusion system to suit every budget.

[Fusion Panels \(solar-products-panels-for-roof-integration.html\)](#)

# Roofing

## 2 x 3 Array



order:

<input type="checkbox"/>	Clearline PV16	6
<input type="checkbox"/>	F16-TL	1
<input type="checkbox"/>	F16-TC	1
<input type="checkbox"/>	F16-TR	1
<input type="checkbox"/>	F16-TY	1
<input type="checkbox"/>	F16-J	2

With six simple kits it is possible to create any combination of columns and rows. Every kit requires a left (L) and right (R) flashing kit. Add columns with a centre (C) kit and add rows above with Y and J kits, as shown in the diagram.

The universal roofing kit works with all common tiles and slates and includes special fixing kits for slate roofs fitted with Scottish practice. Panels can be installed in either portrait or landscape orientation.

[See the kits \(solar-products-roof-integrated-fusion-kits.html\)](http://www.viridiansolar.co.uk/solar-products-roof-integrated-fusion-kits.html)

## Whatever your Roof

# Slate

[Slate Gallery \(gallery-of-solar-installations.html#\(grid|third-filter\)=.slate;\)](#)

or tile

[Tile Gallery \(gallery-of-solar-installations.html#\(grid|third-filter\)=.tile;\)](#)

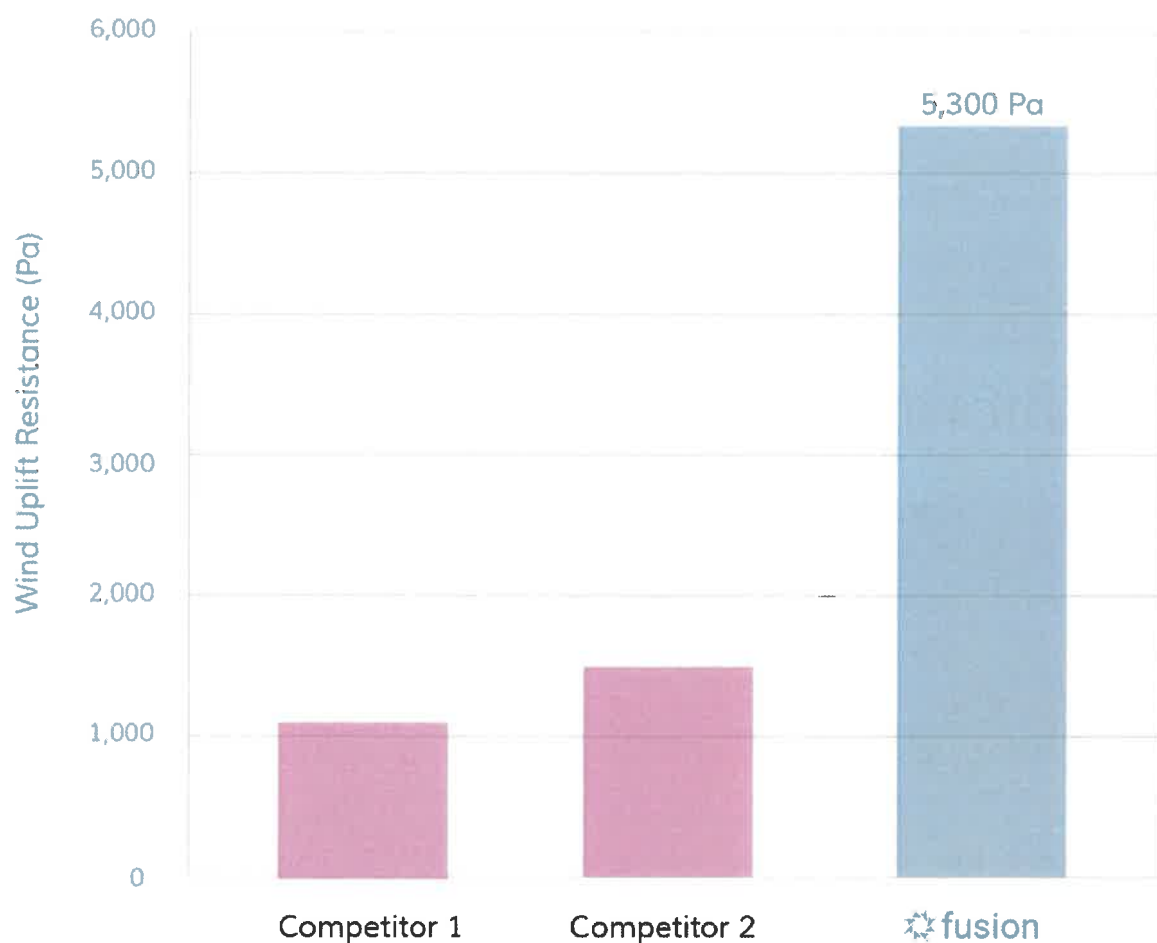
or hipped roofs

The Clearline fusion roofing kit works universally with both slate and tile roofs. Corner conversion kits allow the creation of non-rectangular shapes to get the most out of all roof shapes and sizes.

# Wind Resistance

Wind pressures are higher when solar is roof integrated. The wind resistance of some roof integrated solar products is not high enough for exposed locations.

The certified wind resistance for Clearline Fusion is more than four times higher than competitor products and achieves this without any modification to the roof structure below.



## Simple to Design

Simplicity starts long before you get on the roof. With the Clearline fusion Configurator software it's possible to rapidly price jobs. Just fill in the grid to place panels and the system works out which flashing kits are needed to install the array, and produces a price broken down by plot or combined together into a single list.

[Get Configurator \(solar-resources-installation.html\)](#)

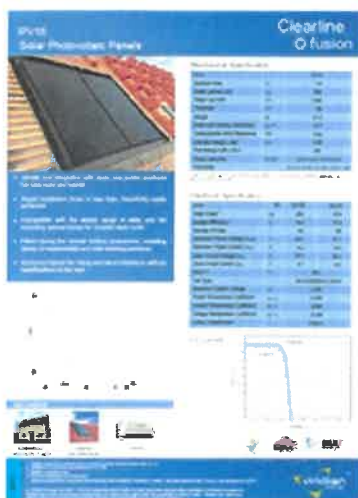
## More Information



(assets/files/Clearline-Fusion-Brochure.pdf)

Clearline Fusion  
Brochure

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(assets/files/Clearline-fusion-PV16-Data-Sheet.pdf)

Datasheet

PV16

(assets/files/Clearline-fusion-PV16-Data-Sheet.pdf)



(assets/files/Clearline-Fusion-Installation-Manual.pdf)

Installation Guide

(assets/files/Clearline-Fusion-Installation-Manual.pdf)



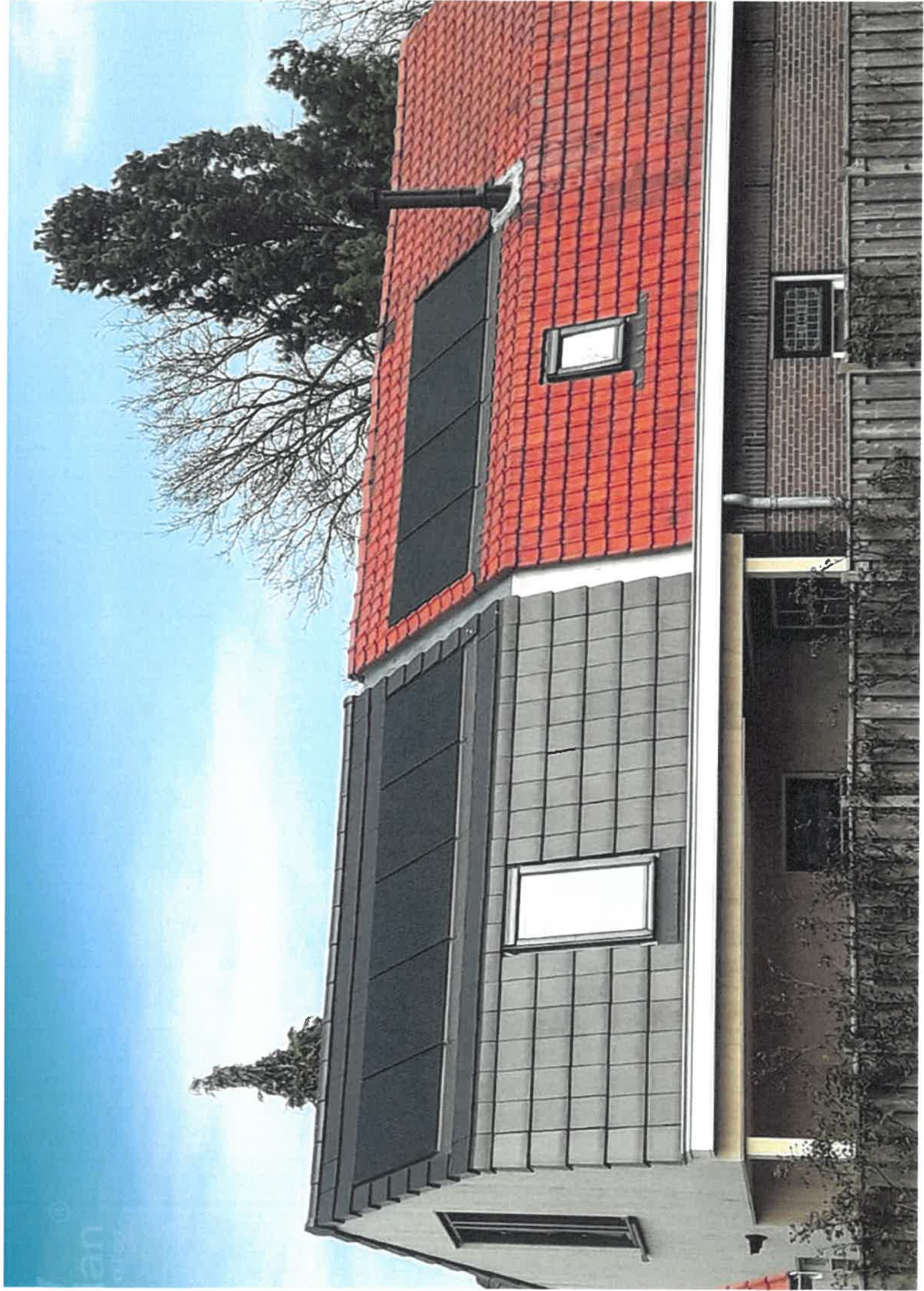
(assets/files/Clearline-Fusion-Corners-Installation-Manual.pdf)

Corners Installation

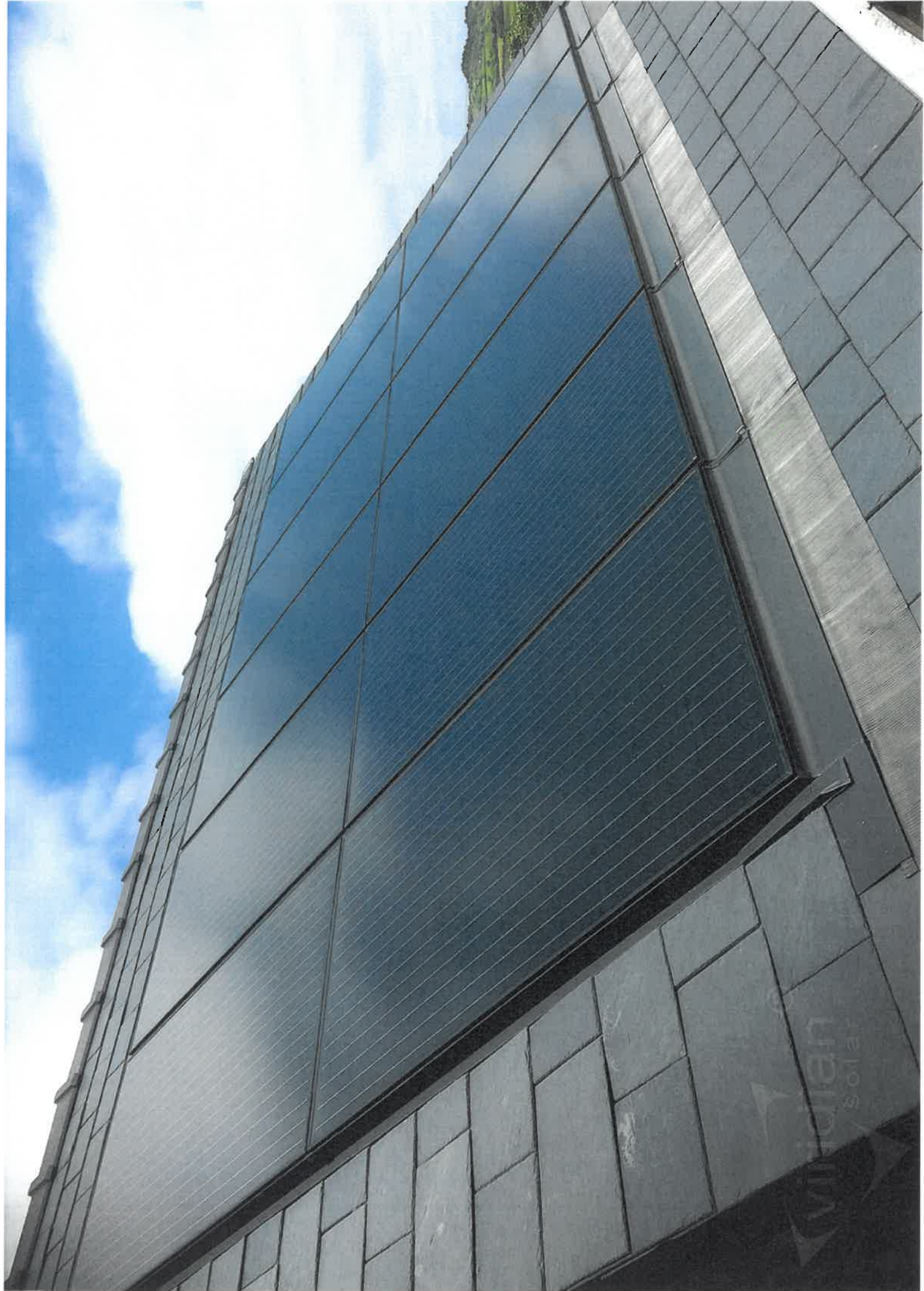
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