

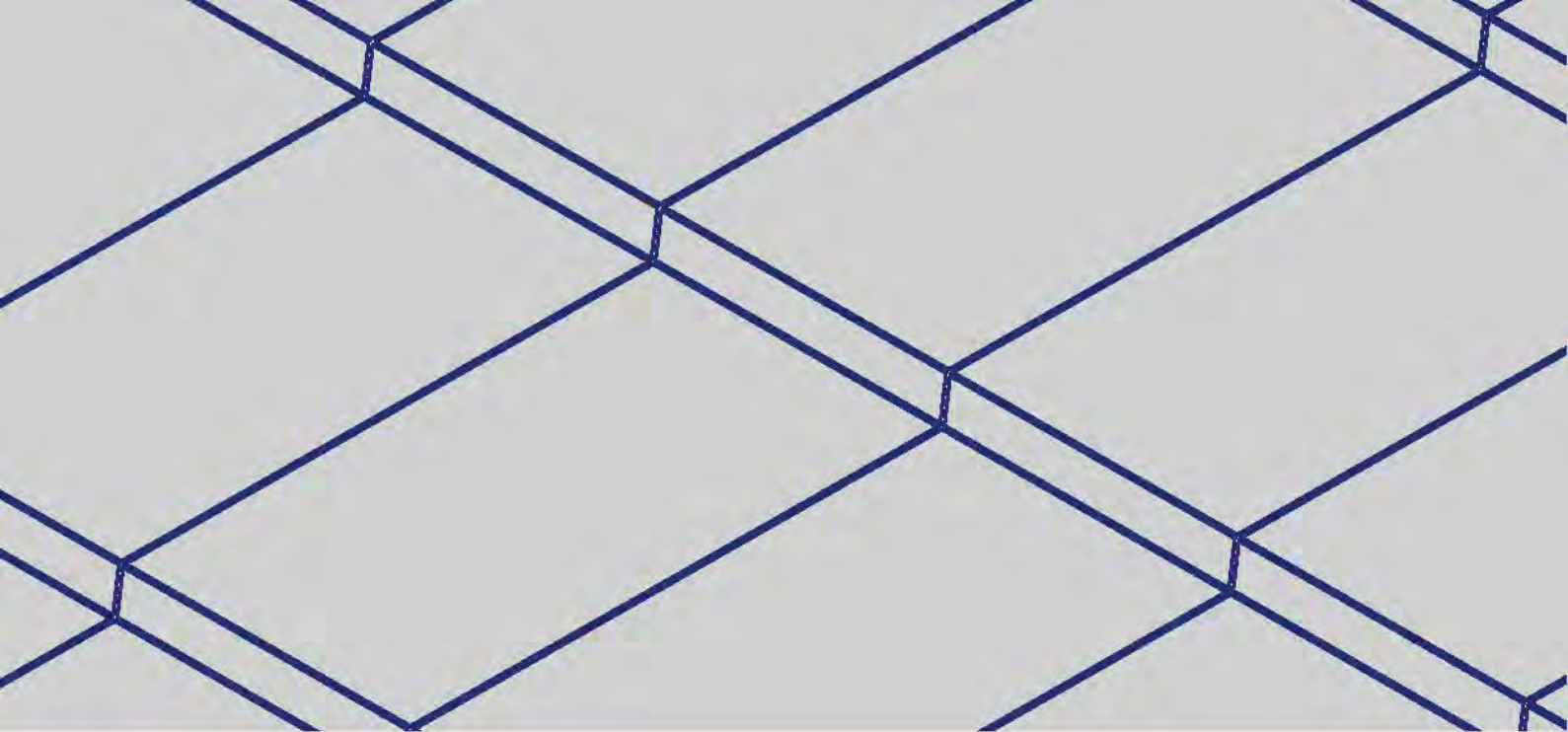
LOHAS

AUSTRALIA

FACADE COLLECTION

PLASMA FACADE PRODUCT GUIDE

LOHASAU.COM



PLASMA

Lohas Plasma: A quality product of contemporary clay manufacturing by innovative design engineers, Lohas Plasma serves as the perfect flat terracotta roof tile for environmentally sustainable performance and fashionable modern looking.



Specification

- Tile weight: 4 kg
- Tiles/ sqm (coverage): 12.5
- Batten set out: 38.5 cm
- Tiles/pack: 6
- Dimension: 249 x 486 mm



Flexural strength



Impermeability



Frost resistance



Geometric characteristics



PLASMA • facade • slate

Being the first roof tile model completely flat

smooth, Plasma seems like a perfect rectangle after being installed and stands out as an option clearly directed to the market of contemporary architecture. Plasma is intended not only for roof covering but also façades, pointing to a whole new concept of integrated clay covering, allowing a complete continuity of the colour and aesthetic of the building without needing to introduce different materials.



Roofing



Facade



**Roofing
&Facade**

plasma colours

- Ensures total water sealing through the interlocking system between the tiles
- It is intended not only to cover roofs but also facades
- The best water tightness, even in very harsh climate situations
- The high firing temperatures guarantees the lowest level of absorption



FACADE 1 Colours



Pearl White



Steel Grey



Metallic Grey



Anthracite

FACADE 2 Colours



Pearl White



Steel Grey



Metallic Grey



Ebano

SLATE

Colours





plasma

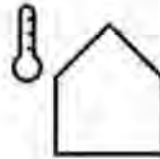
Facade 1





Sound Insulation

The roof proves a sound barrier, improving comfort and reducing acoustic noise inside buildings



Thermal Insulation

Clay roof tile provides shading to the buildings. Associated with ventilation, the clay roof tile covering significantly reduces the heating effect of sun exposure.



Technical Support

Provided by experienced technical people. Technical support to the applicator clarifies any doubt during the construction period



Architects Support

Service support for the project, calculation of quantities, fittings identification and budgeting. Beyond the provision of general construction details for each type of roof tile, this service assists and assesses its integration into the project.



Tank water safe

Clay roof tile is a non-toxic product with a natural origin, allowing the use of rainwater for multiple purposes.



Minipacks

Assembled roof tiles in minipacks to enable better storage, pallet stability and facilitate transport and handling during application.

plasma



Facade 2



recommended accessories

- Ridge
- Starter
- Apex
- Half tile
- Barge tile (right)
- Barge tile (Left)
- Gable tile (right)
- Gable tile (left)



■ Ridge tile



■ Hip starter



■ 3-way Apex



■ Barge tile left



■ Barge tile right



■ Gable tile right



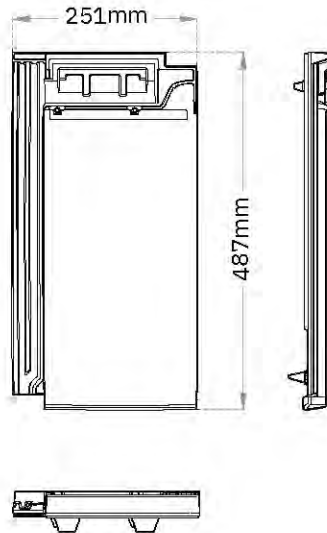
■ Half tile



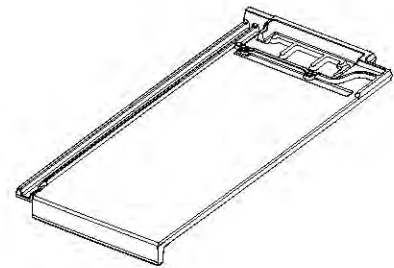
■ Gable tile left

plasma roof tile

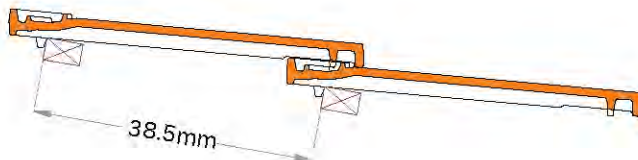
Technical Drawing



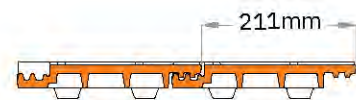
1. Transversal and longitudinal views



2. Isometric view



3. Average gauge length



4. Coverage width of 1 Plasma roof tile

Notes:

The presented measures are approximate values in "mm". Please consult the LOHAS technical department to clarify any doubt. We strongly advise not using PVC batten due to its flexibility and way of attachment to the structure (often using nails or bolts with a significant "head") that may interfere with the proper support of the PLASMA tile. It is not advisable to fix Plasma roof tile using nails, however, opting for this method the tip of the nail should be adapted to prevent cracking or breaking during application.



plasma
facade

a new type of ventilated facade.

Plasma Facade

a new type of ventilated facade.

Plasma façade is a new type of ventilated façade, where the external cladding is made of Plasma clay tiles. **Ventilated façades** are nowadays a building process recognized for its good performance:

- Rain protection;
- Avoids thermal bridges;
- Avoids internal condensation (given the possibility of applying the thermal insulation on the outside surface of the walls);
- Help temperature dissipation (solar radiation is partially reflected, the thermal transmission between the external cladding and the wall is very low due to the air circulation between the two elements).

Plasma Façade offers a set of additional advantages:

- It is non-combustible (class M0);
- Resists atmospheric agents;
- Ensures total water sealing through the interlocking system between the tiles;
- Provides a fixing system always hidden;
- Allows horizontal adjustments (under request to our technical department);
- Allows the use of direct fixing structures with no need for adjusting systems;
- It is a more economical ventilated façade solution due to the cost of the external cladding and the cost of the fixing structure;
- It is a solution not only for new buildings, but also is especially suited for rehabilitation.



Support structure:

It consists of two aluminium profiles:

- **“Z” profiles:** directly fixed on the wall, acting as vertical supports;
- **“Omega” profiles:** screwed to the “Z” profiles, where Plasma tiles are going to be screwed to.

Thermal insulation:

“Z” profiles must be spaced to ensure total use of the expanded polystyrene panels of 1000 x 1000 x 60 mm, or the black agglomerated cork panels of 1000 x 500 x 60 mm, fixed on the wall with appropriate adhesives.



1. Plasma roof tile
2. “Z” profile
3. “Omega” profile
4. Insulation
5. Wall
6. Air gap

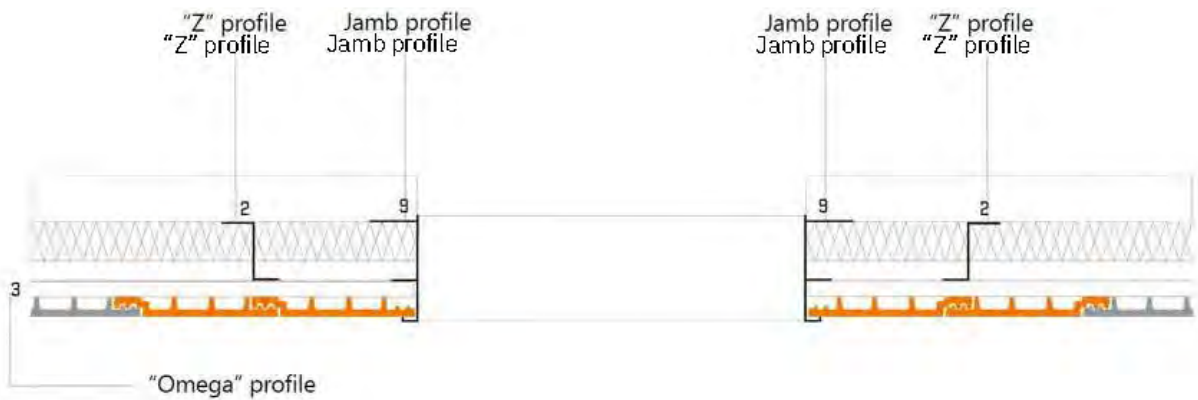
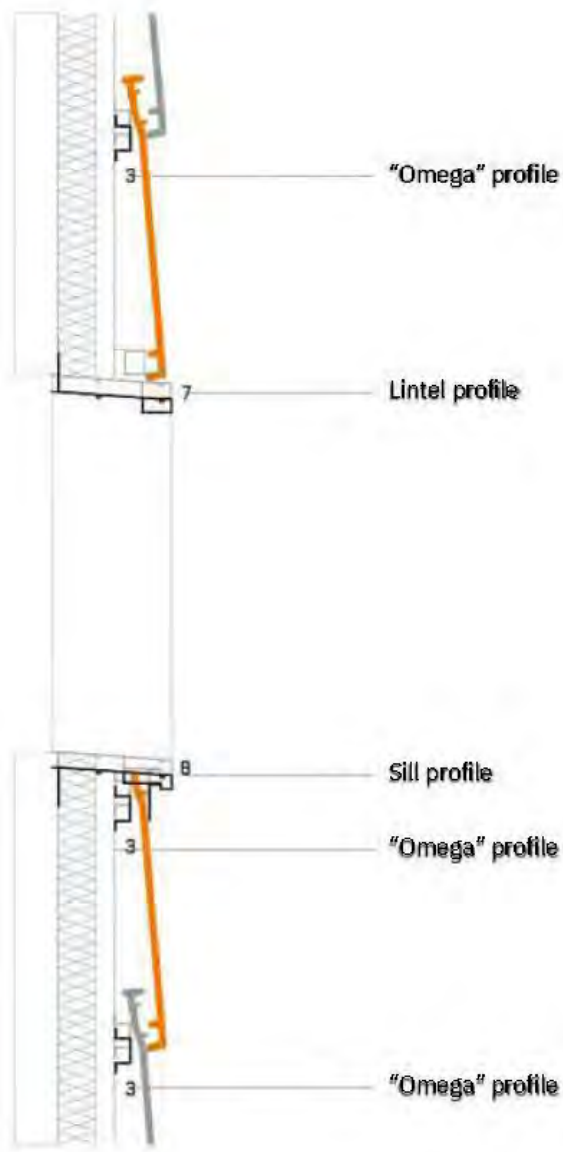


88° and 90° - Standard angles.

Other angles, under request.

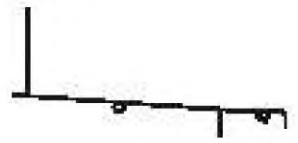
Finishings between tiles and bays:

three aluminium profiles - sill, jamb and lintel - ensure the perfect transition between the external plane of the façade and the frame of windows or doors, whichever the type of opening (hinged or sliding).





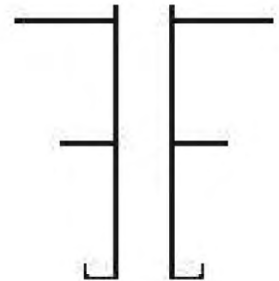
7.Lintel profile



8.Sill profile



9.Jamb profile

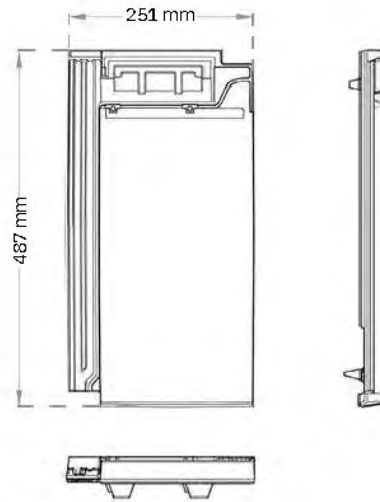


External and internal façade corners:

By industrially cutting and gluing the clay pieces, a new single L-shaped tile is created with the desired angle.



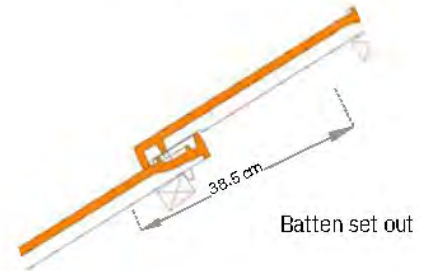
PLASMA



12.5 Tiles/sqm

6 Tiles per pack

4 kg Weight



Flexural Strength



Impermeability



Frost Resistance



Geometric Characteristics



Roofing & Facade

Colours



Pearl White



Steel Grey



Metallic Grey



Anthracite



Copper Green



Natural Glazed



Natural Red



Brown



Weathered



Accessories



RIDGE



STARTER



3-WAY APEX



HALF TILE



BARGE

WHY TERRACOTTA ROOF IS MORE THAN JUST A ROOF?

NATURAL

MIXTURE OF CLAY AND MANGANESE DELIVERS TO IMBUE NATURAL COLOURS AND ELIMINATES FADE

REDUCED RISK OF MOULD, ROT AND COLOUR LOSS



LIFE-LONG MAINTANENCE



AGE



H - CASSETTES

BAKED IN EXTREMELY HIGH TEMPERATURES IN AN INDIVIDUAL MOULD GIVES THE TILES EXCESSIVE STRENGTH AND HIGH THERMAL PERFORMANCE

REDUCED WATER ABSORPTION RATE!

3- 5% LOW WATER ABSORPTION RATE PREVENTS CRACKS INCREASED DURABILITY MAKES FOR

LOW NEED FOR MAINTENANCE!

IF ROOFTILES ARE MADE DIFFERENTLY?

CONCRETE TILES HAVE

8-10% WATER ABSORPTION RATE

HIGH RISK TO GET GREEN MOSS

LESS STRENGTH



“EWW.. BAD ROOF!”

WHAT'S MORE?

“PERFECTLY TIGHT INTERLOCKING SYSTEM”



CLIP LOCK!

ENGINEERED DESIGN OF SECURE INTERLOCKING SYSTEM

EXCITING FACT!

ALL DIFFERENT ROOF

ACCESSORIES ARE AVAILABLE TO SUIT ANY ROOFING PLANS YOU HAVE.

WHY LOHAS TERRACOTTA ROOFTILES?

LOHAS ROOF TILE

GENERAL ROOF TILE

**HIGH
TEMPERATURE
BAKED**



**LOW
TEMPERATURE
BAKED**



**LOW
WATER
ABSORPTION
RATE**



**HIGH
WATER
ABSORPTION
RATE**

**SECURE
COLOUR
PROTECTION**



**INSECURE
COLOUR
PROTECTION**

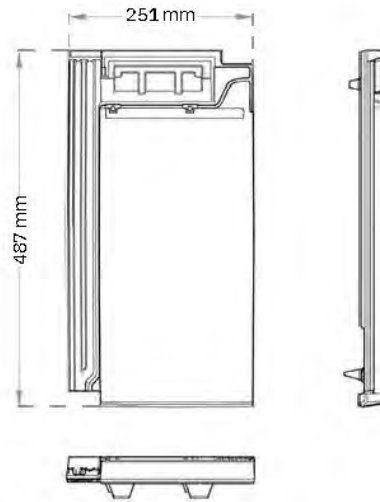


**LOW
RISK LIFE
MAINTENANCE**



**HIGH
RISK LIFE
MAINTENANCE**

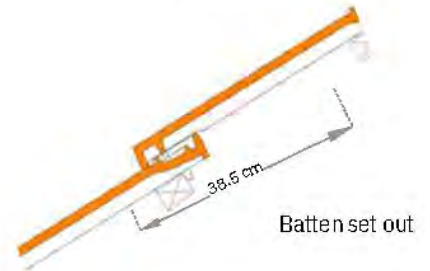
Facade I & II



12.5 Tiles/sqm

6 Tiles per pack

4 kg Weight



Batten set out



Flexural Strength



Impermeability



Frost Resistance



Geometric Characteristics



Roofing & Facade

Facade I Colours



Pearl White



Steel Grey



Metallic Grey



Ebano



Facade II Colours



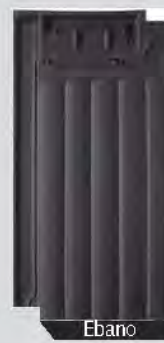
Pearl White



Steel Grey



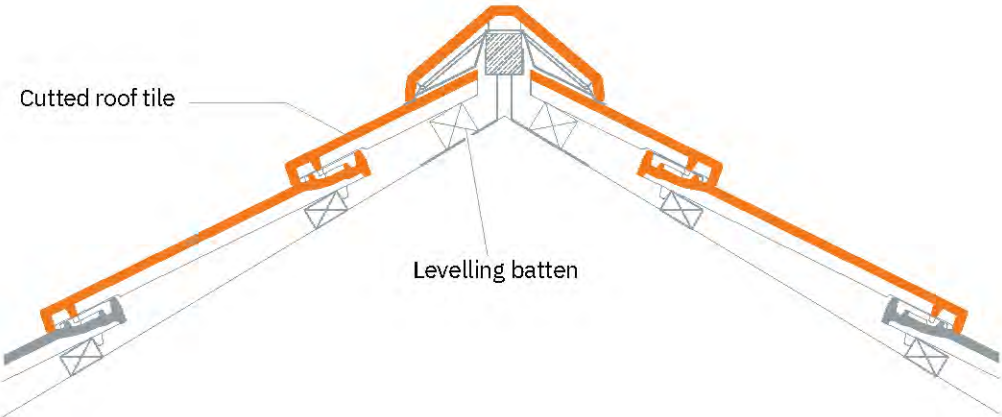
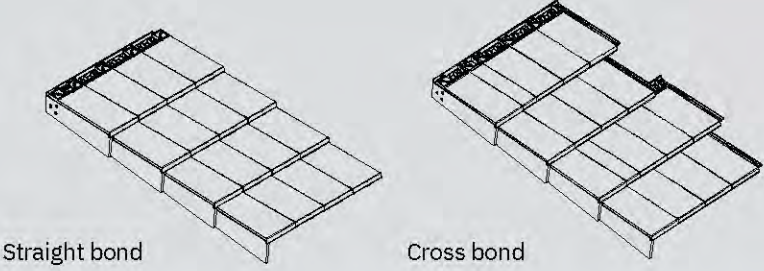
Metallic Grey



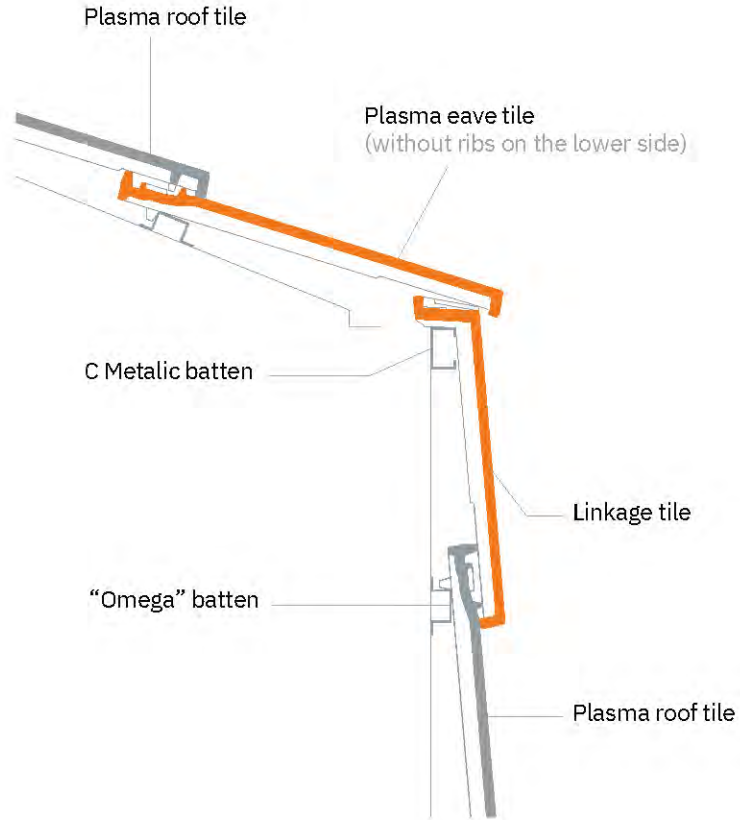
Ebano

LOHAS Plasma facade is a new brand of ventilated tiled facade, presenting a fresh contemporary concept of integrated external clay cladding recognized for great performance and original applications. With a resultant continuity of colour and aesthetic in the building, this type of facade alleviates the need to accomplish a continuity through the introduction of different materials. Simple but daring, LOHAS Plasma Façade's perfectly flat and rectangle forms holds a textured effect for those who fancy an innovative ornamental finish, a perfect balance between aesthetics and function.

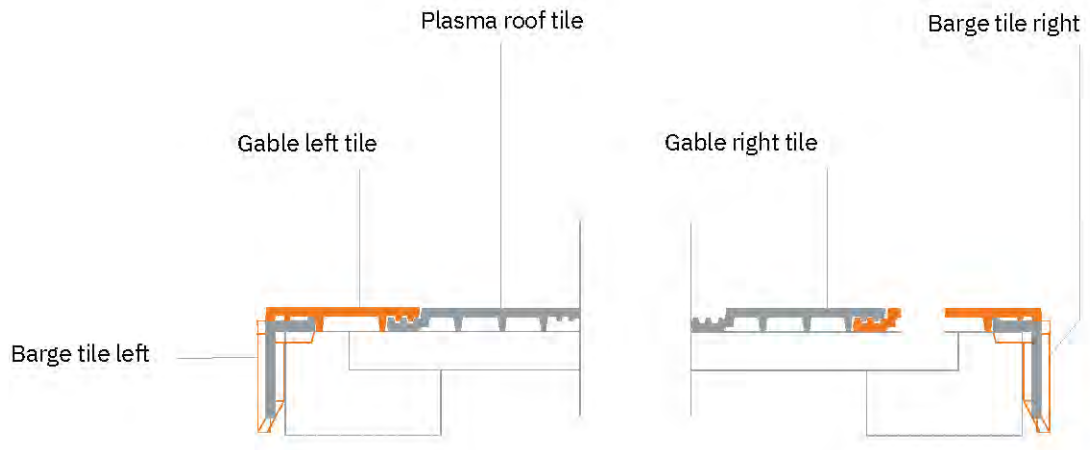
technical drawings



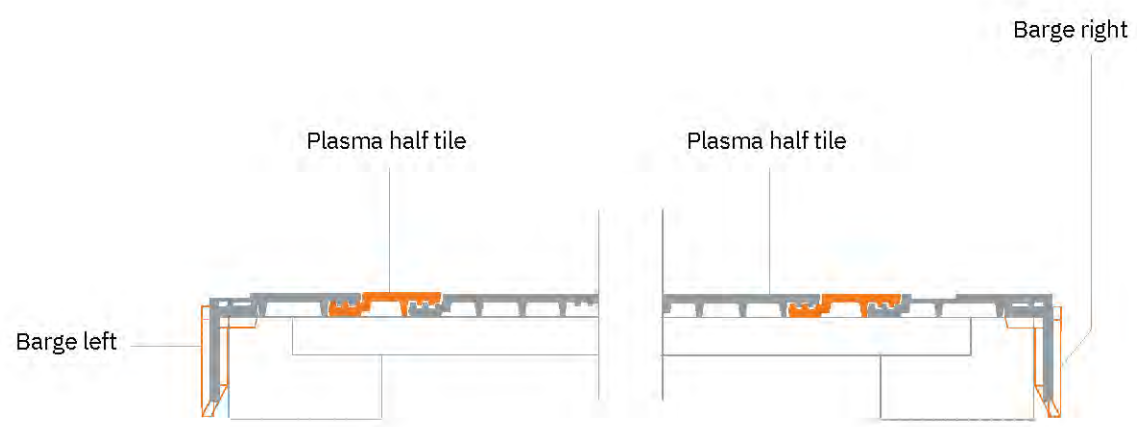
1



2

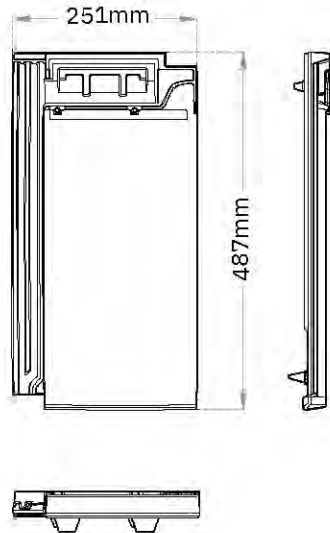


3

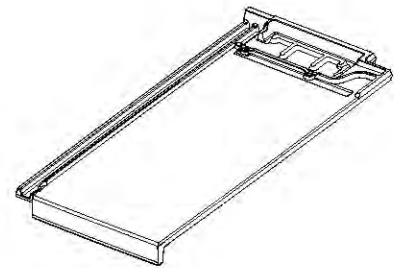


4

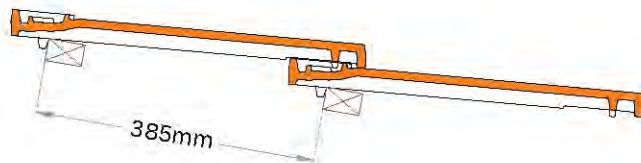
Plasma Technical Drawing Detail



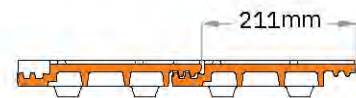
1. Transversal and longitudinal views



2. Isometric view



3. Average gauge length



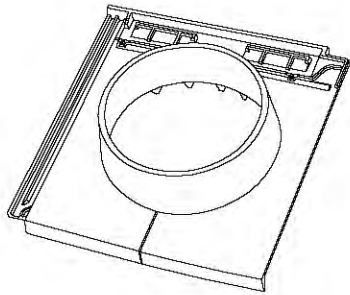
4. Coverage width of 1 Plasma roof tile

Notes:

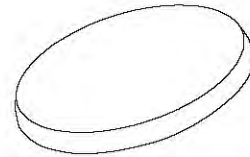
The presented measures are approximate values in "mm". Please consult LOHAS technical department to clarify any doubt. We strongly advise not using PVC batten due to its flexibility and way of attachment to the structure (often using nails or bolts with a significant "head") that may interfere with the proper support of the PLASMA tile.

It is not advisable to fix Plasma roof tile using nails, however, opting for this method the tip of the nail should be adapted to prevent cracking or breaking during application.

cap and roof tile with opening 250mm

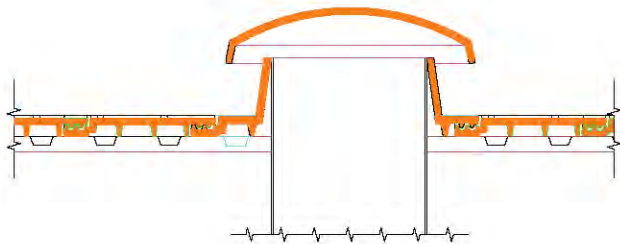


1. Isometric view of roof tile with opening 250mm

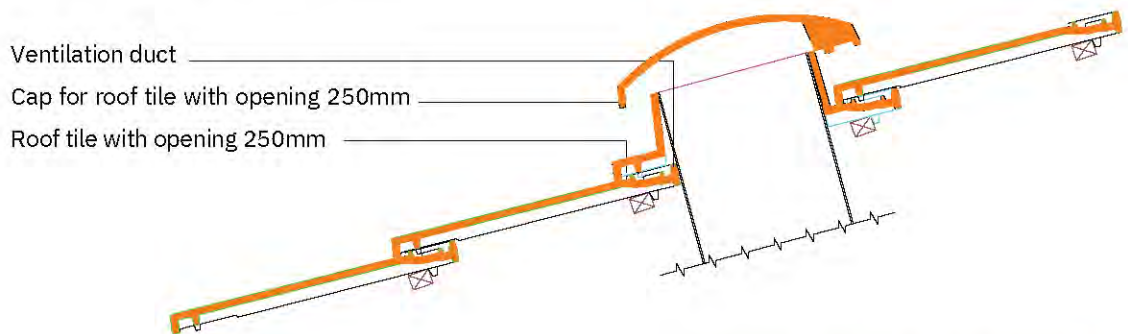


2. Isometric view of cap

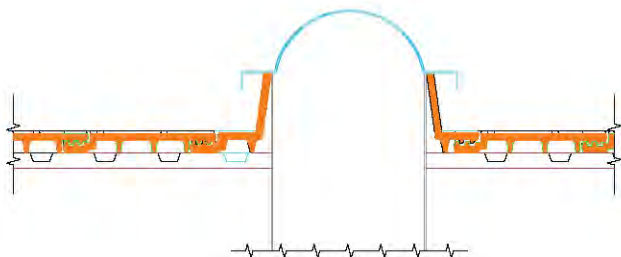
Ventilation duct solution



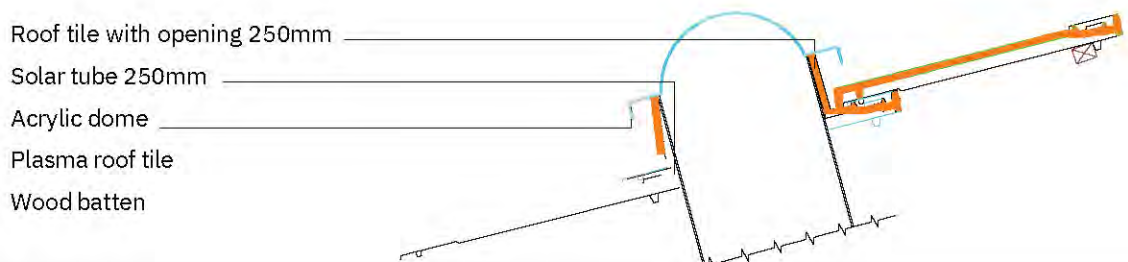
3. Cross-view
4. Longitudinal cut



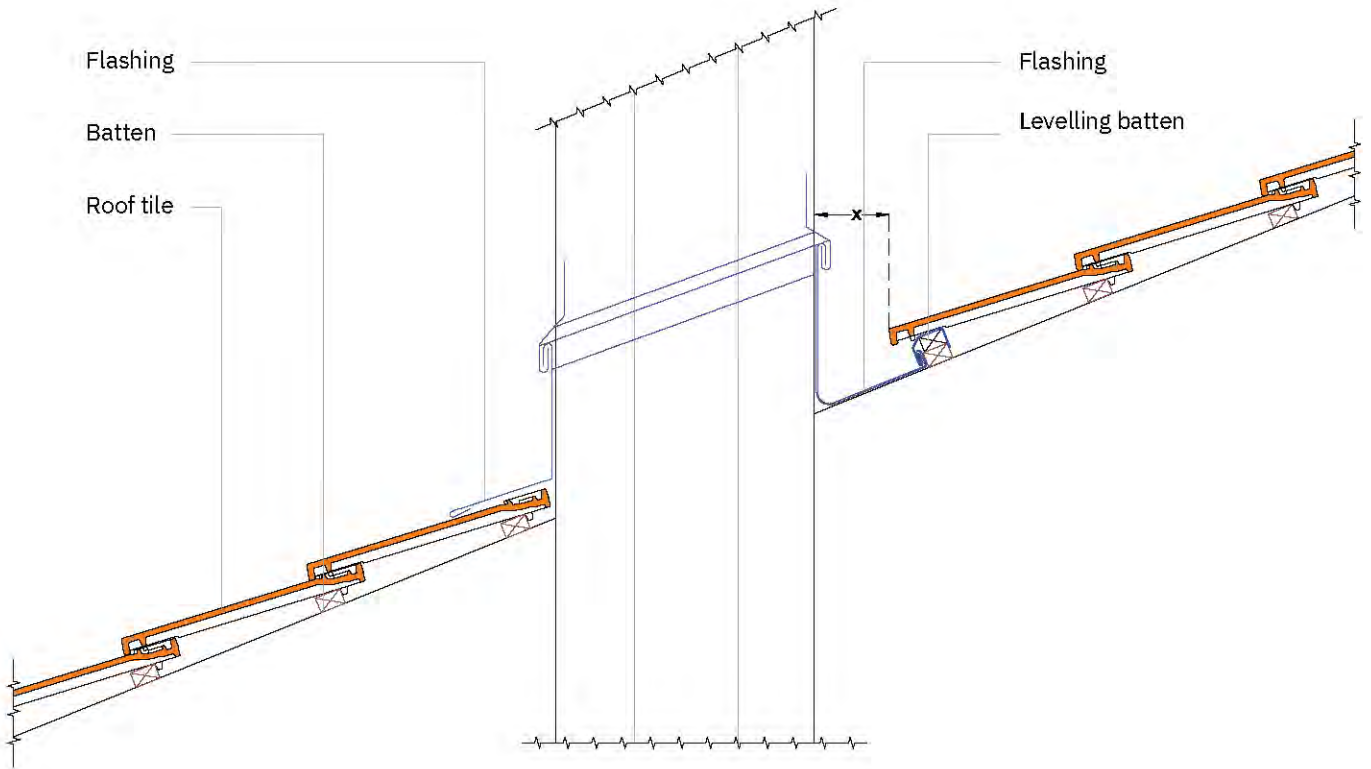
Solar tube solution



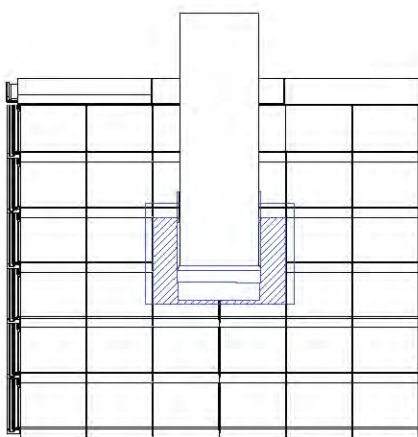
5. Cross-view
6. Longitudinal cut



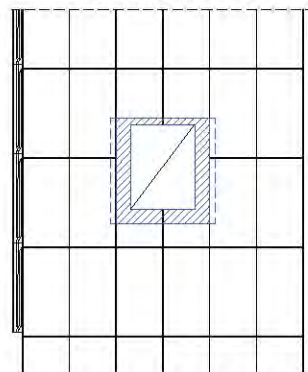
Chimney Flashing



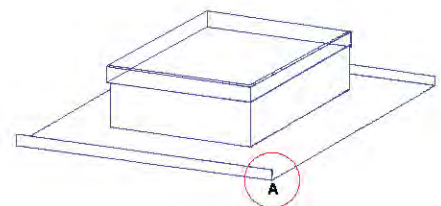
X = Variable measure depending on the length of the sloping plane and the expected amount of water carried on the flashing. However, this measure should be, at least, 150mm.



Elevation

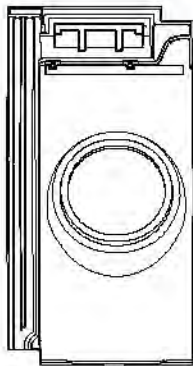


Plan view

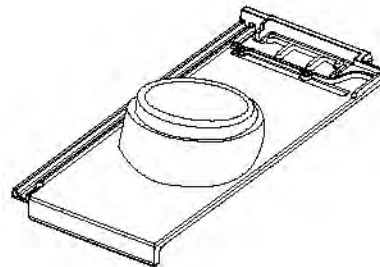


A = It should be created in the casing flange to prevent water from entering the roof. The height of the flange depends on the type of roof structure, and must be at least 20mm (measurement indicative).

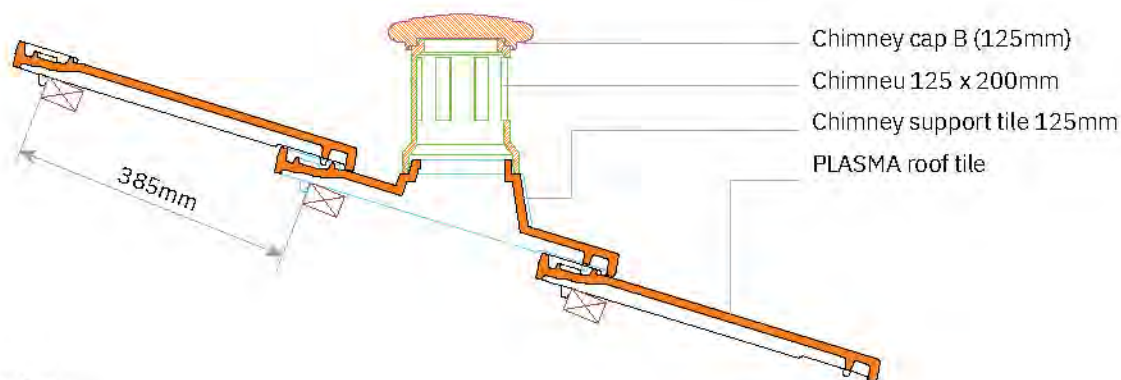
Chimney support tile



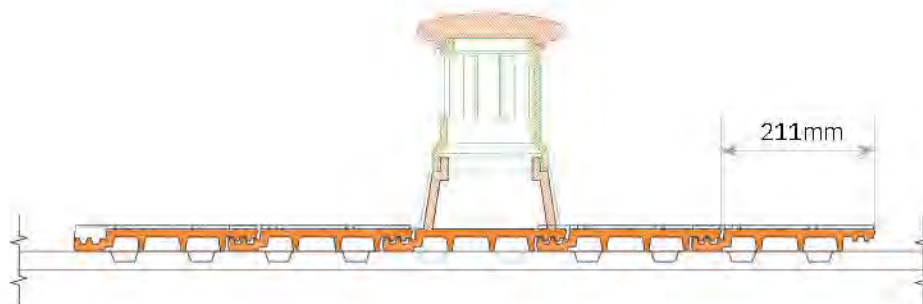
1. Chimney support tile 125mm



2. Isometric view



3. Longitudinal cut

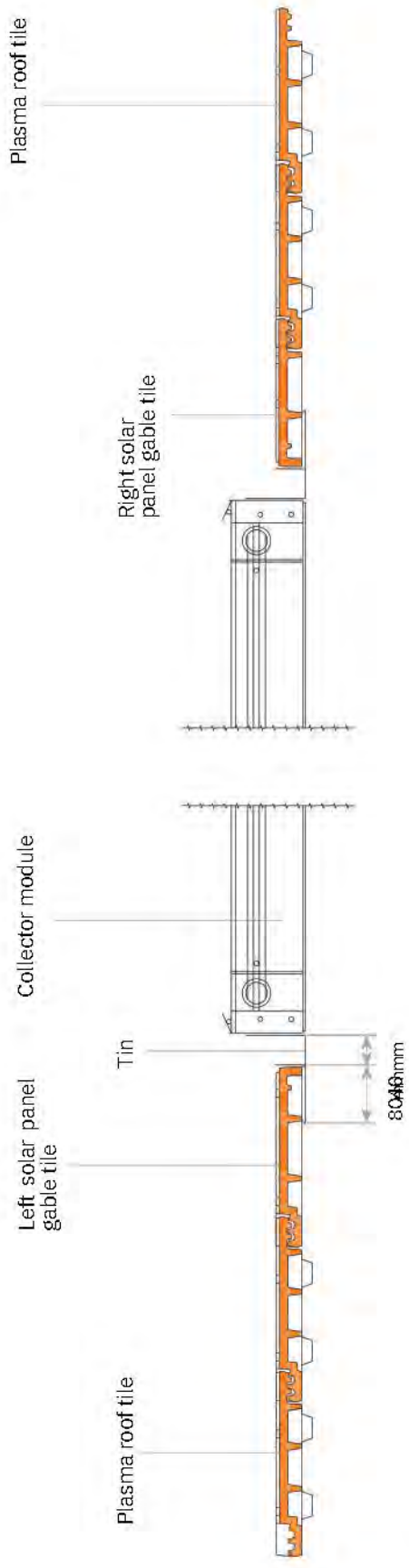


4. Cross-section

Notes:

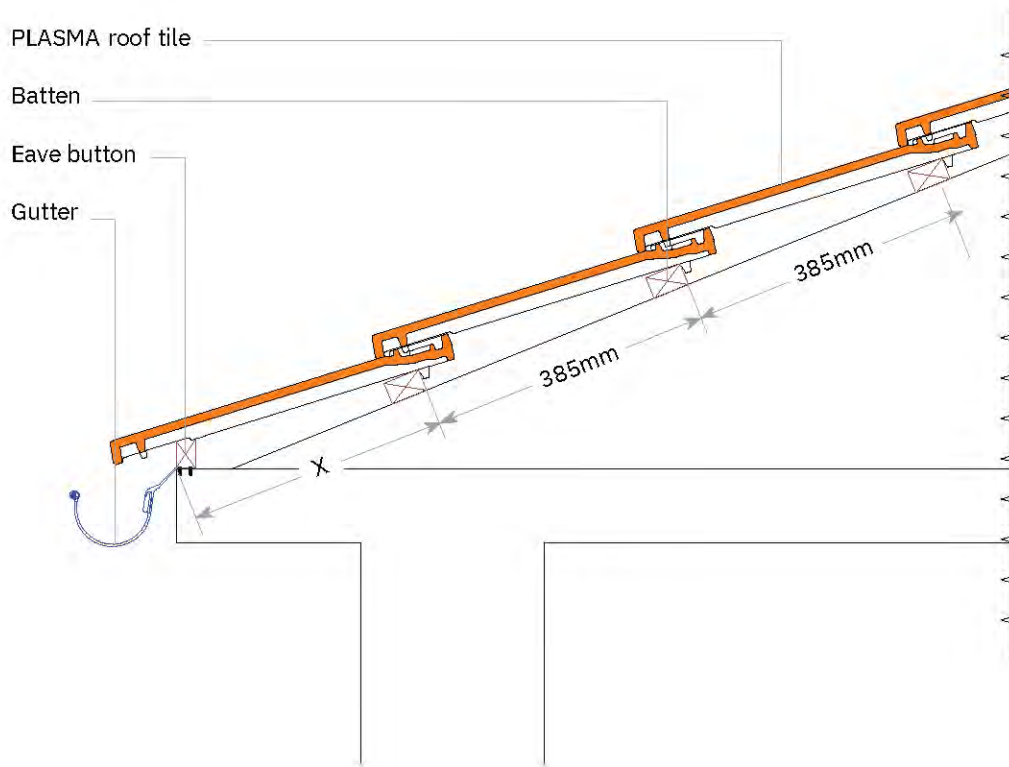
- Chimney support tile 125mm PLASMA is designed for an average slope of 22°(40%). For other inclinations, the combination of the base with the chimney flue must be adjusted on site.
- The presented measures are approximate values in "mm". Please consult LOHAS technical department to clarify any doubt.

collector solar module



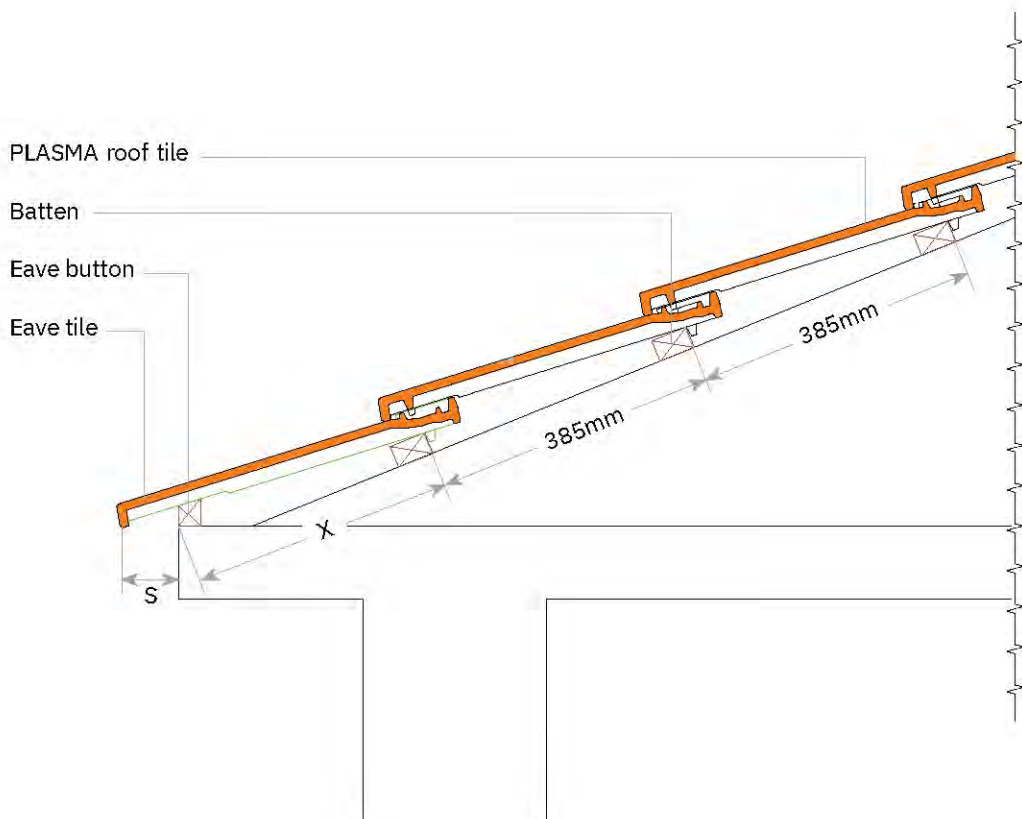
Horizontal cut

eave detail with gutter



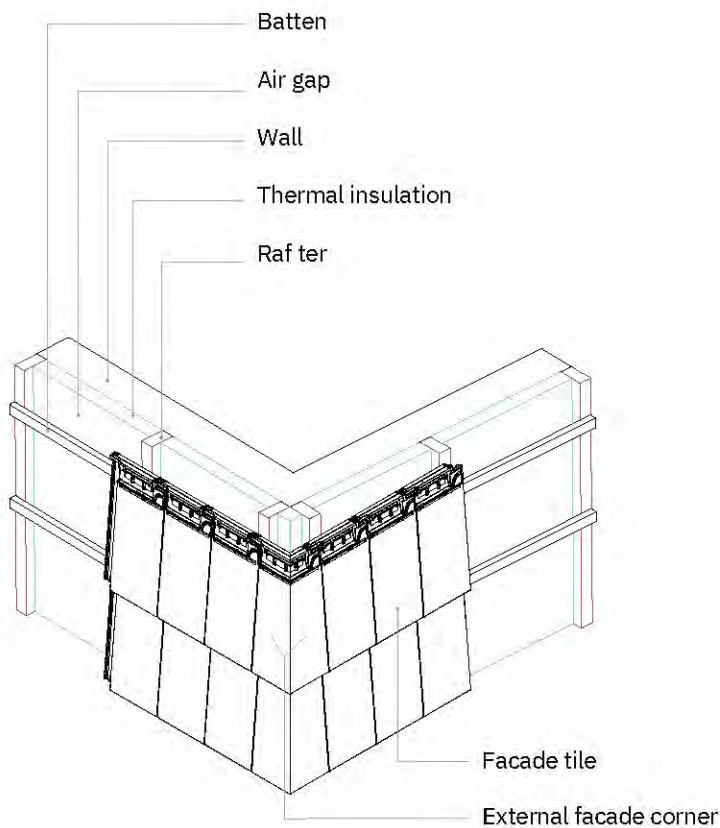
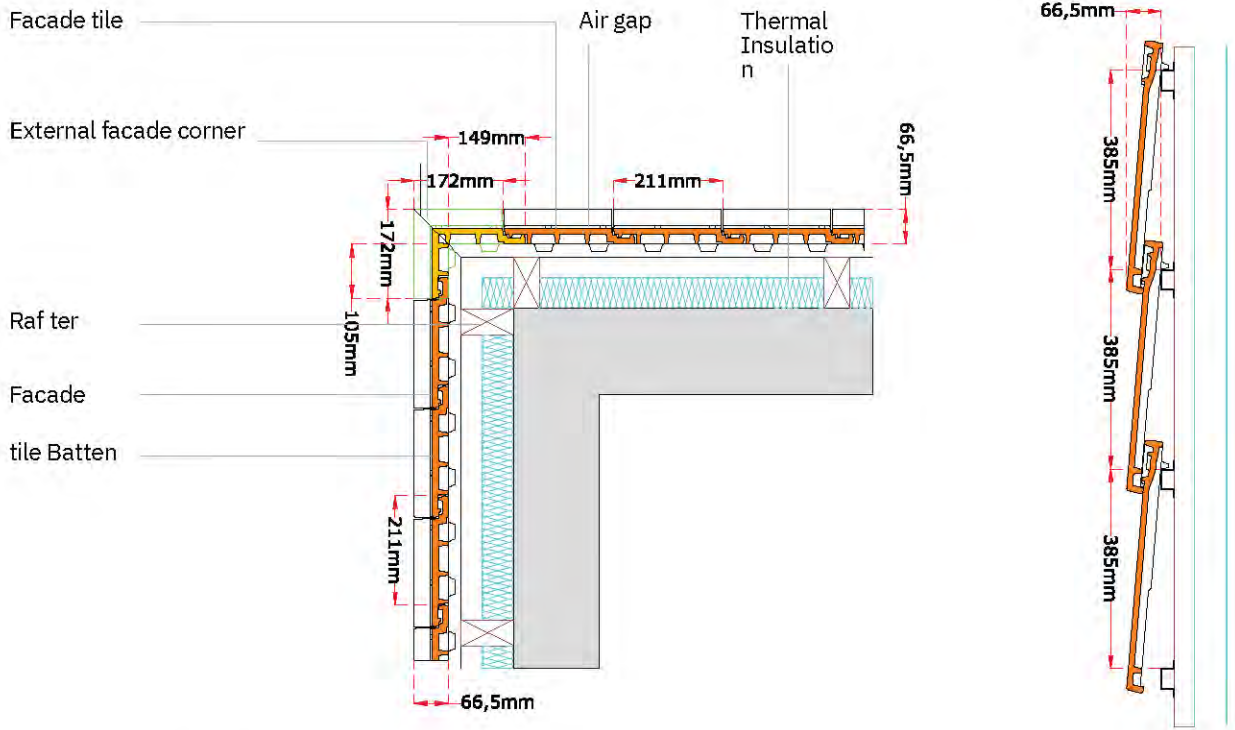
X = Variable measure depending on the roof pitch.

eave detail



X = Variable measures depending on the roof pitch and measure expected to be projected beyond the wall (S). S = Measure advised to be between 50 e 150mm, for Plasma roof tile.

external facade corner



1. External facade corner

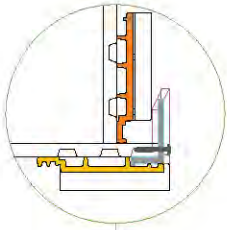
The intersection angle of two vertical planes may not necessarily be 90°. These fittings can be adapted to different angles (please consult LOHAS Technical Department).

Plasma allows the possibility of simultaneous use on the roof as well as on the facade (there are specific accessories to do this interface). It has two pre-holes so that it can be vertically fixed, with self-drilling screws and washers, our factory also developed an additional metallic "clip" for using one in each tile of the facade. The use of Plasma roof tile on the facade, should always implicate the previous evaluation and advising from LOHAS technical department, through the analysis of the architecture project.

It is not advisable to fix Plasma roof tile using nails, however, opting for this method the tip of the nail should be adapted to prevent cracking or breaking during application.

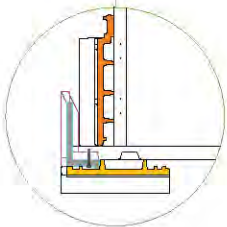
2. External facade corner - isometric view

finishing the corner with Barge Tiles

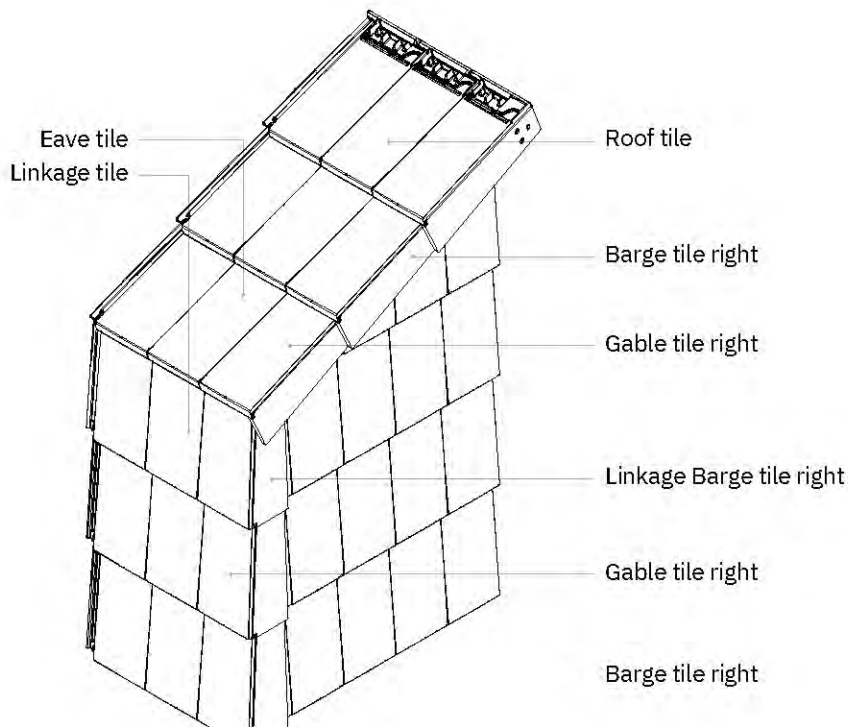
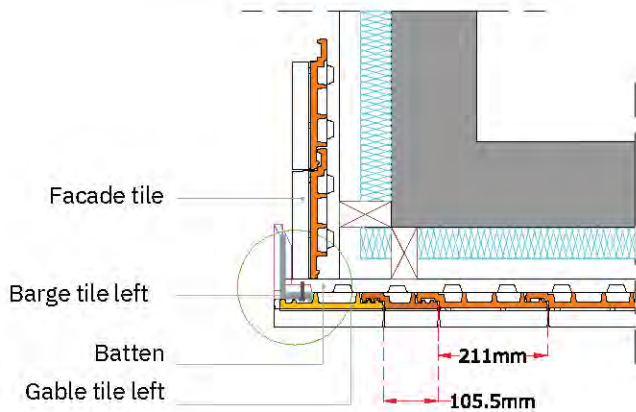
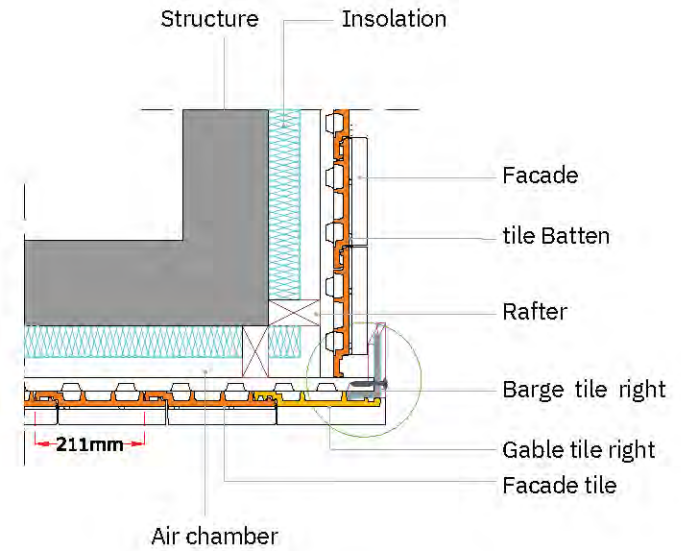


1.Right corner

When applying the barge tile on the corner, the batten should be as much salient as possible, to allow the fixing of the trim strip to the barge, via a screw, placed on top of the gable or on sideways.



2.Left corner



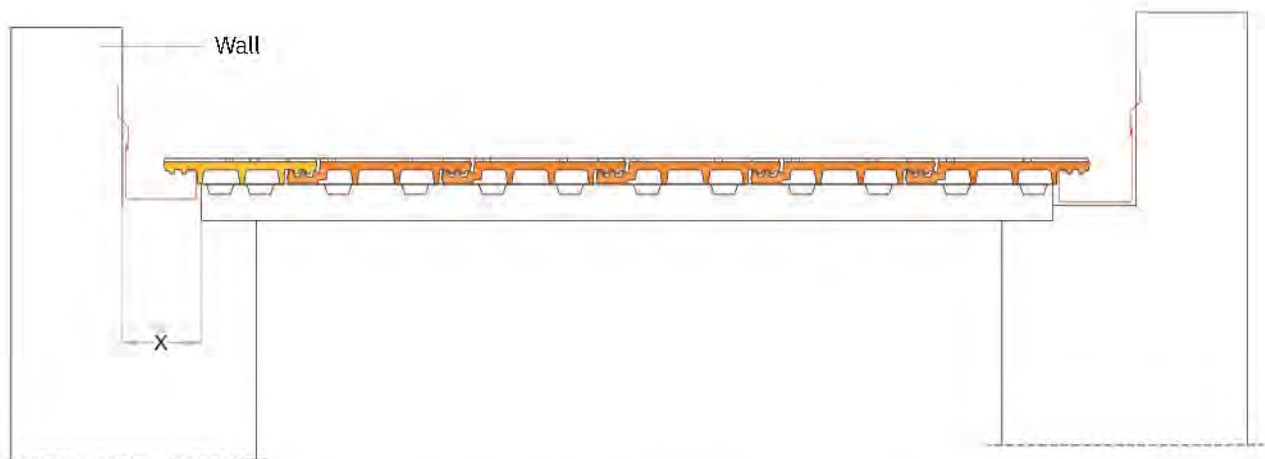
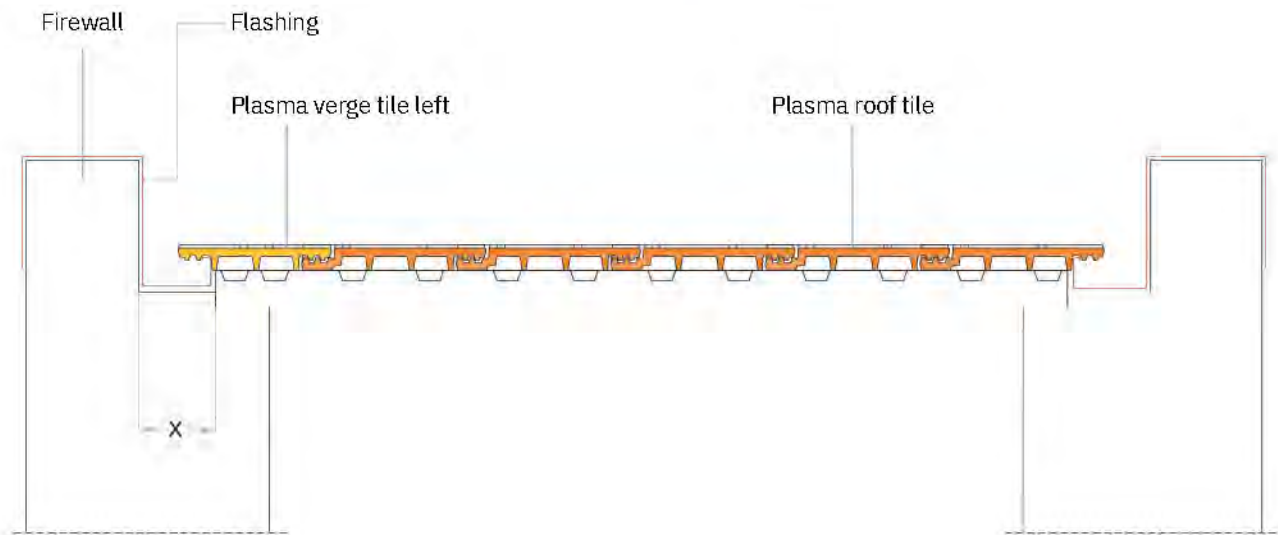
3.Isometric view of the right corner in the facade

Notes:

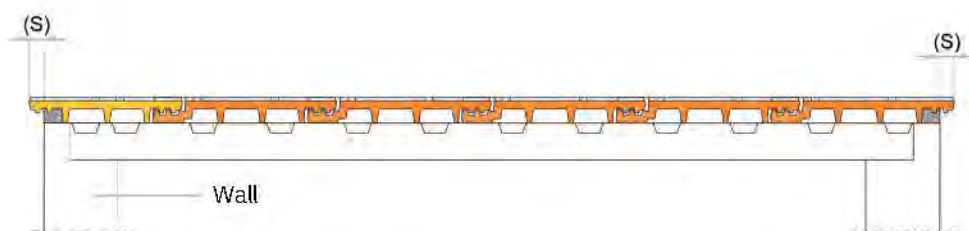
In areas of high exposure of the roof, the fixing can be achieved by applying screws and washers to pre-existing holes in the roof tiles.

Our factory also developed an additional metallic "clip" for joint application, using one for each tile on the facade. The application of the Plasma roof tile on the facade always involves the preliminary assessment and counseling by LOHAS Technical Department, by providing the elements of architectural design.

finishing the roof edge with/without wall

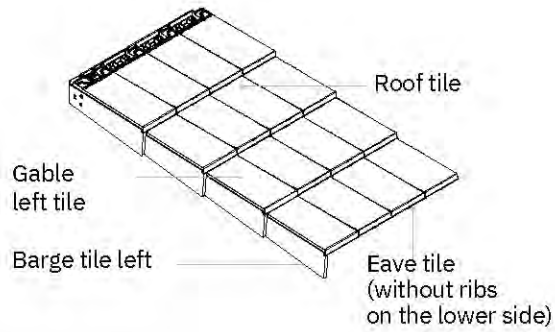


X - Variable measure depending on the length of the sloping plane and the expected amount of water carried on the flashing.

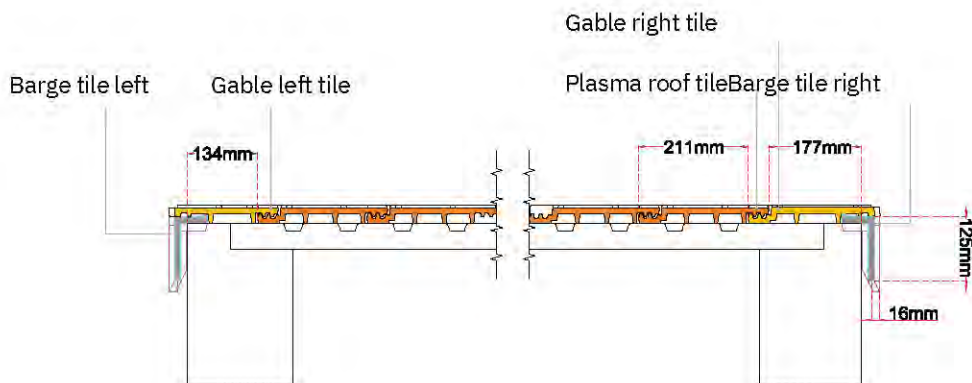


(S)- Plasma roof tile and left verge tile lateral overhang, should be between 15 and 20mm creating a "drip" effect preventing the water flow in the wall. These pieces fixation is made by applying mortar or other similar products of low absorption (eg. FLEXIM). In areas of high exposure of the roof, the fixing can be achieved by the application of screws and washers in the pre-existing holes.

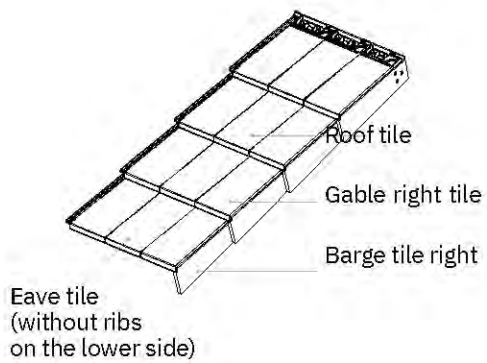
finishing the roof edges with Barge Tiles



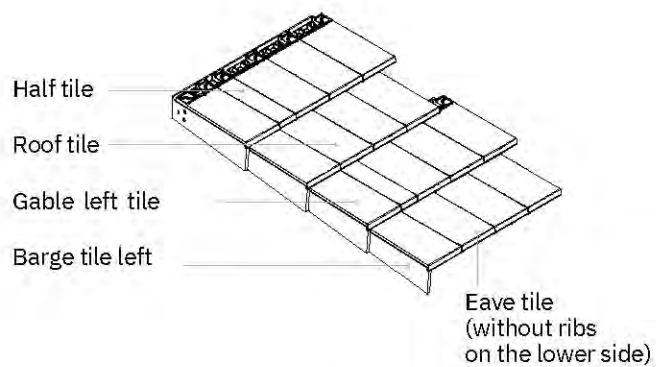
1. Aligned joint. The roof left edge.



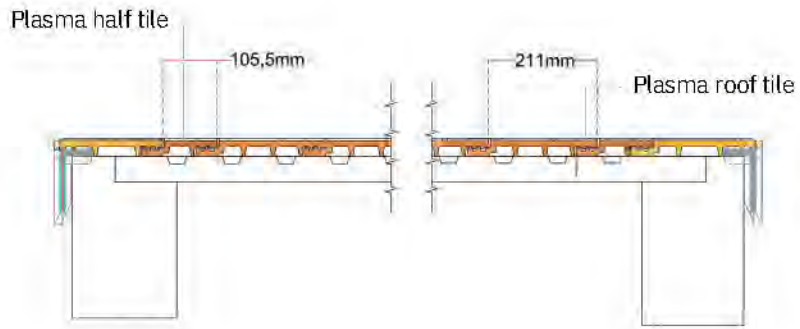
2. Aligned joint. Cross-section.



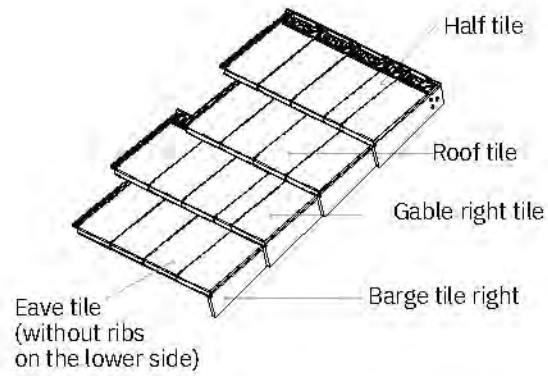
3. Aligned joint.



4. Crossed joints. The roof left edge.



5. Crossed joints. Cross-section



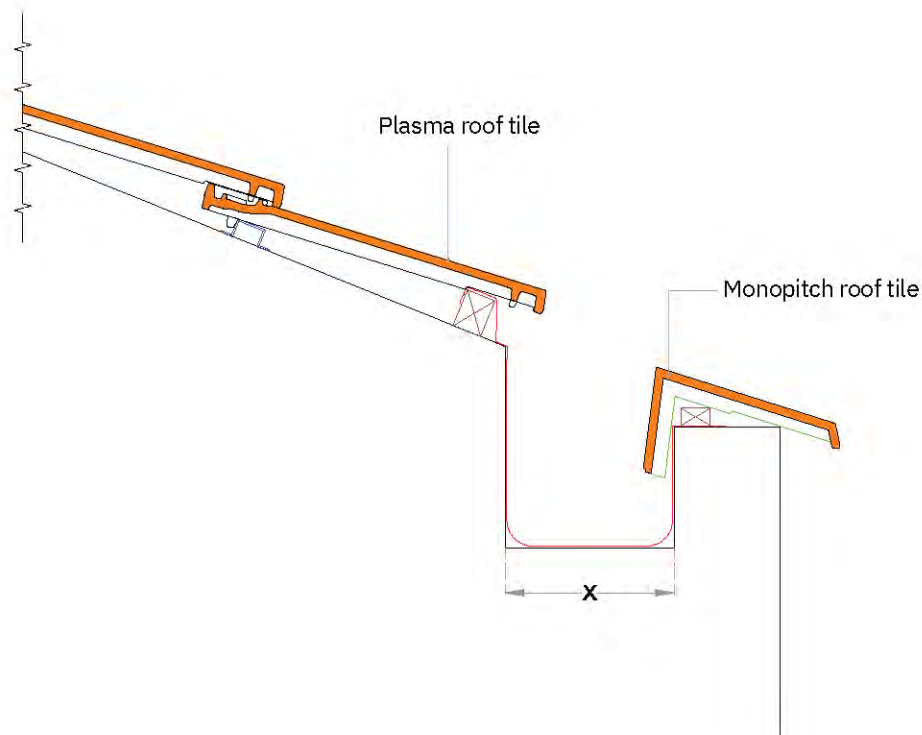
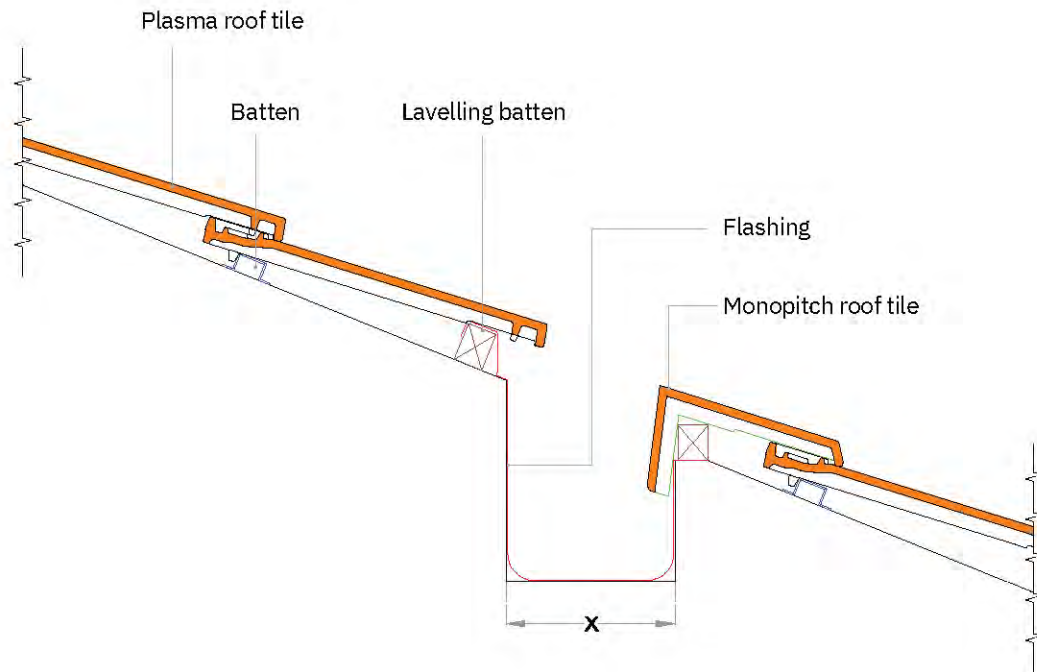
6. Crossed joints. The roof right edge.



7. Barge tile allowed covering extend.

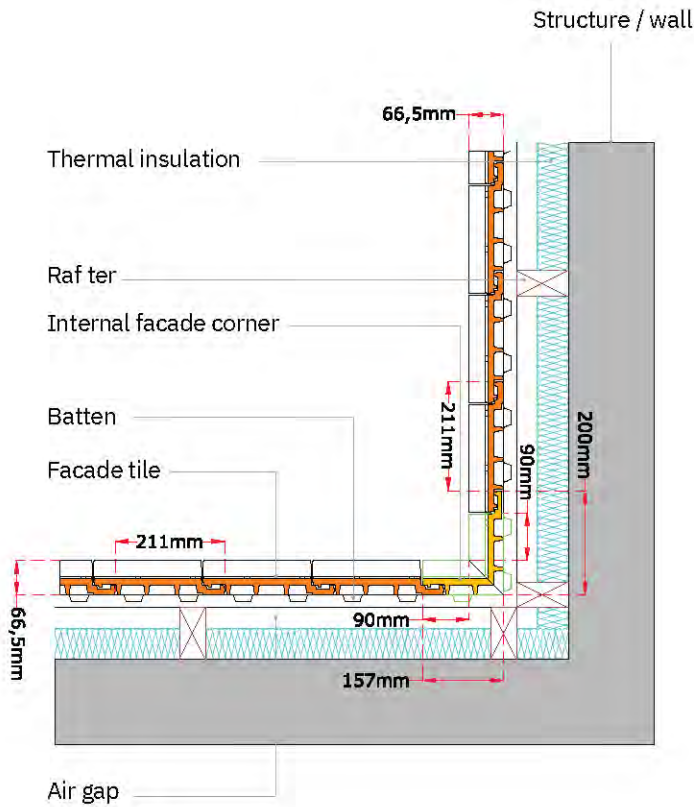
Note 1 : The presented measures are approximate values in mm.
 Note 2 : The average width of 4 Plasma roof tile is 844mm.

imbedded gutter finish detail

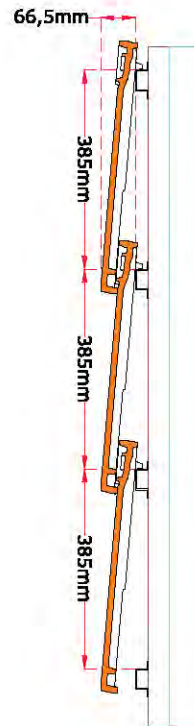


X = Variable measure depending on the length of the sloping plane and the expected amount of water carried on the flashing.

internal facade corner



1. Internal facade corner

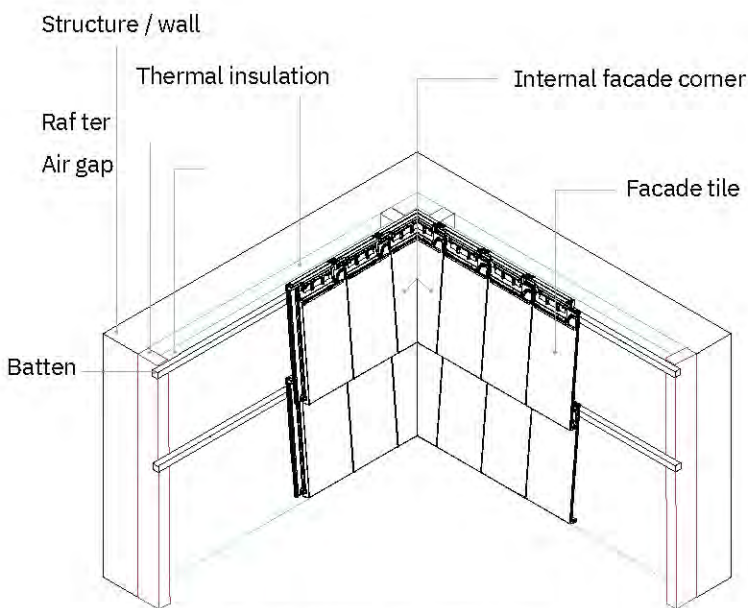


The intersection angle of two vertical planes may not necessarily be 90°. These fittings can be adapted to different angles (please consult LOHAS Technical Department).

Plasma allows the possibility of simultaneous use on the roof as well as on the facade (there are specific accessories to do this interface). It has two pre-holes so that it can be vertically fixed, with self-drilling screws and washers, our factory also developed an additional metallic "clip" for using one in each tile of the facade.

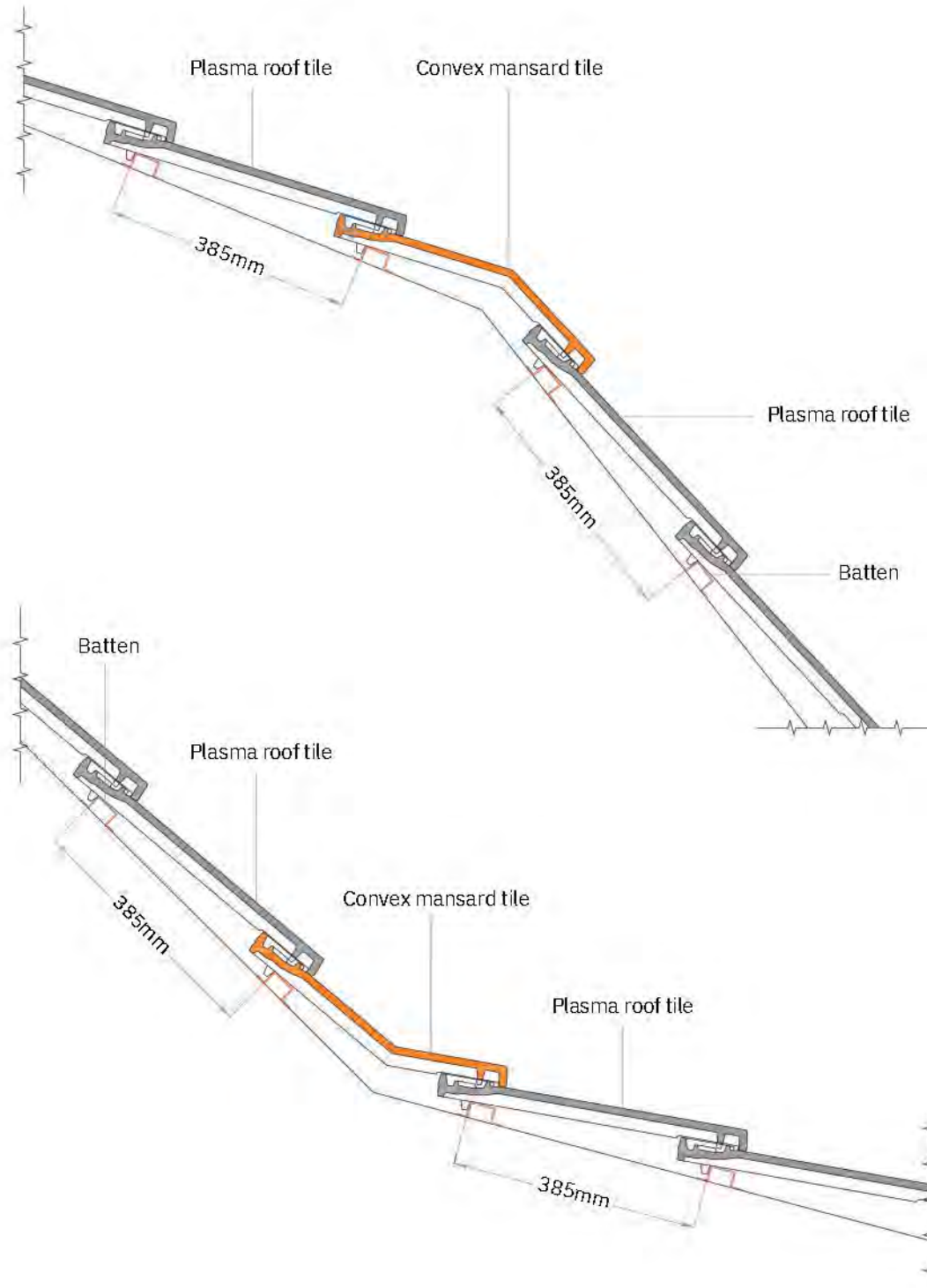
The use of Plasma roof tile on the facade, should always implicate the previous evaluation and advising from LOHAS technical department, through the analysis of the architecture project.

It is not advisable to fix Plasma roof tile using nails, however, opting for this method the tip of the nail should be adapted to prevent cracking or breaking during application.



2. Internal facade corner - isometric view

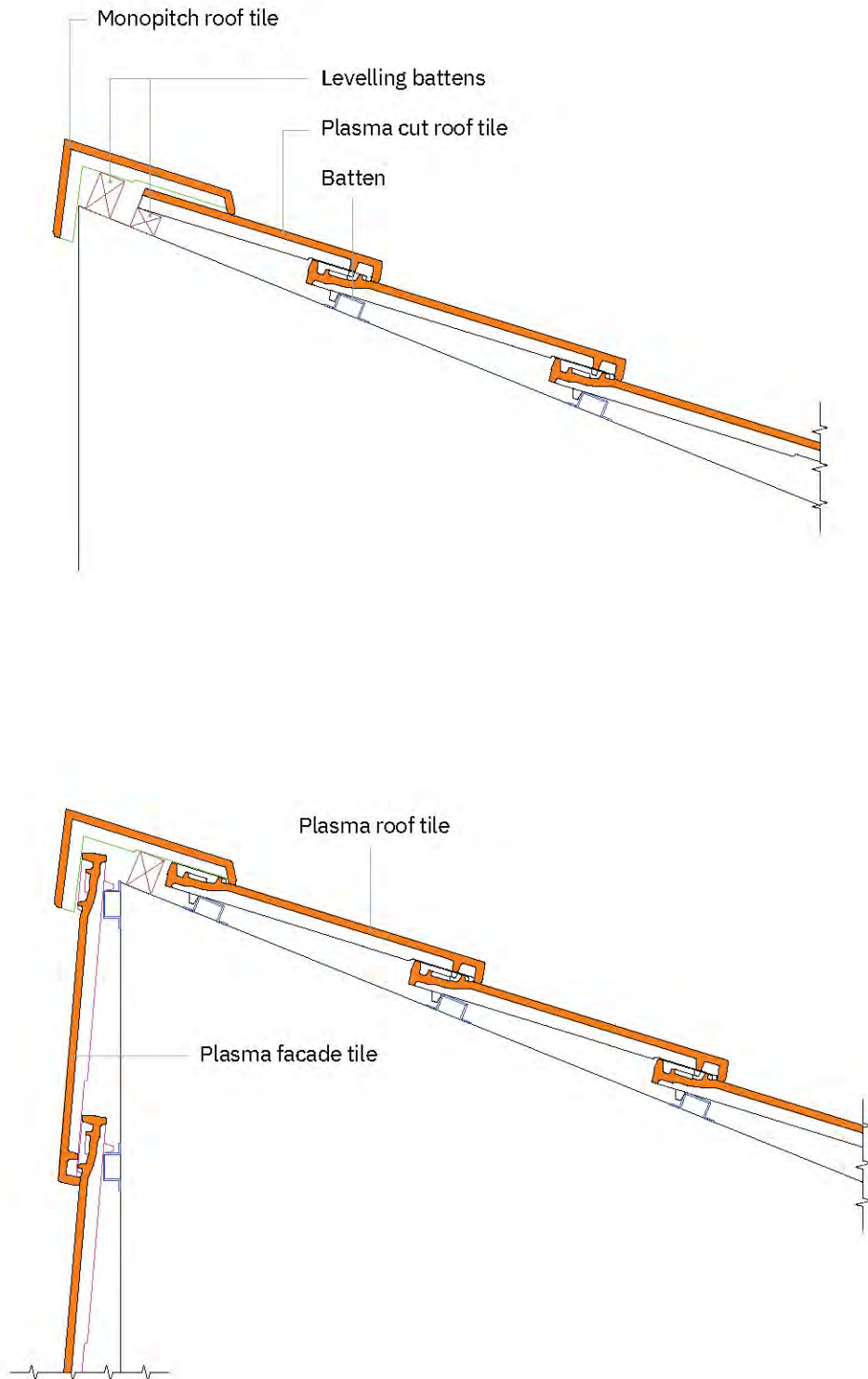
mansard tile detail



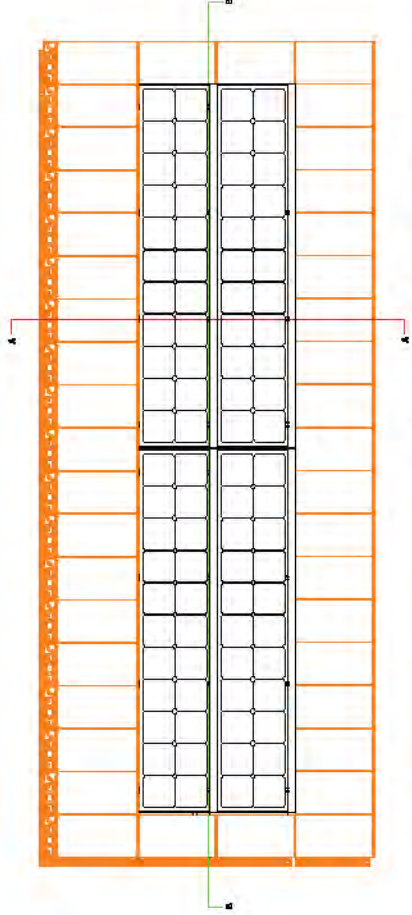
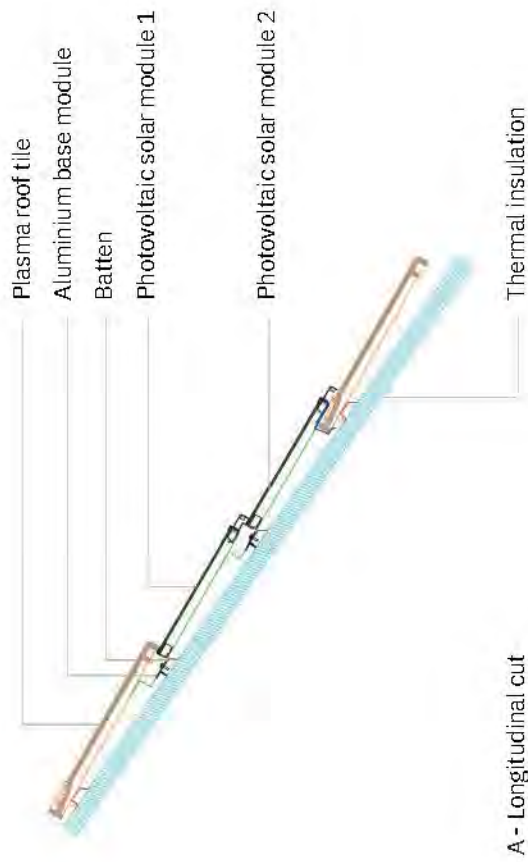
Notes:

- Pieces available in various angles.
- The presented measures should be considered approximate. More questions, please contact the LOHAS Technical dept.

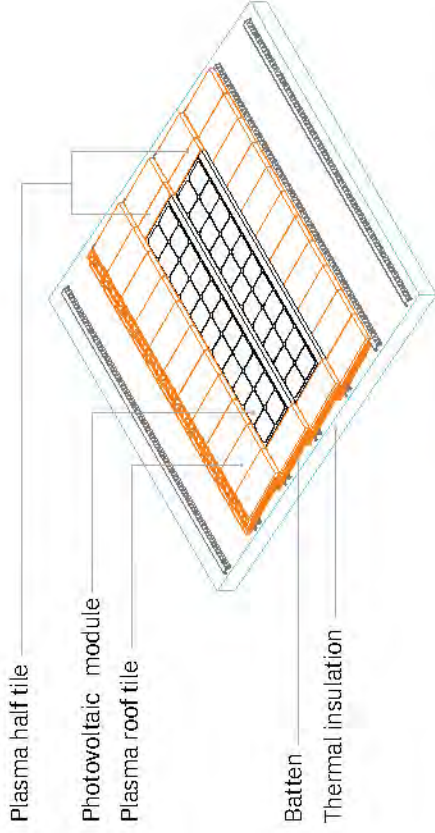
monopitch roof detail



photovoltaic solar module



1. Plan view (4 PV modules application)

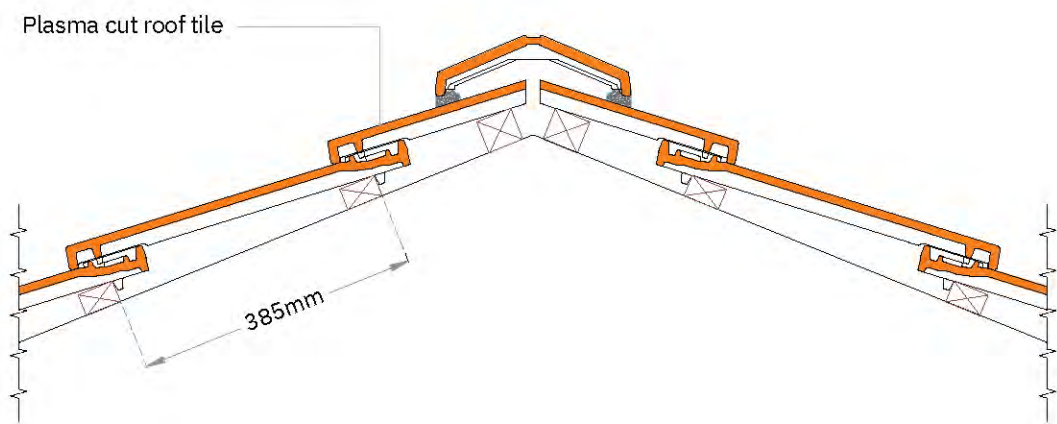
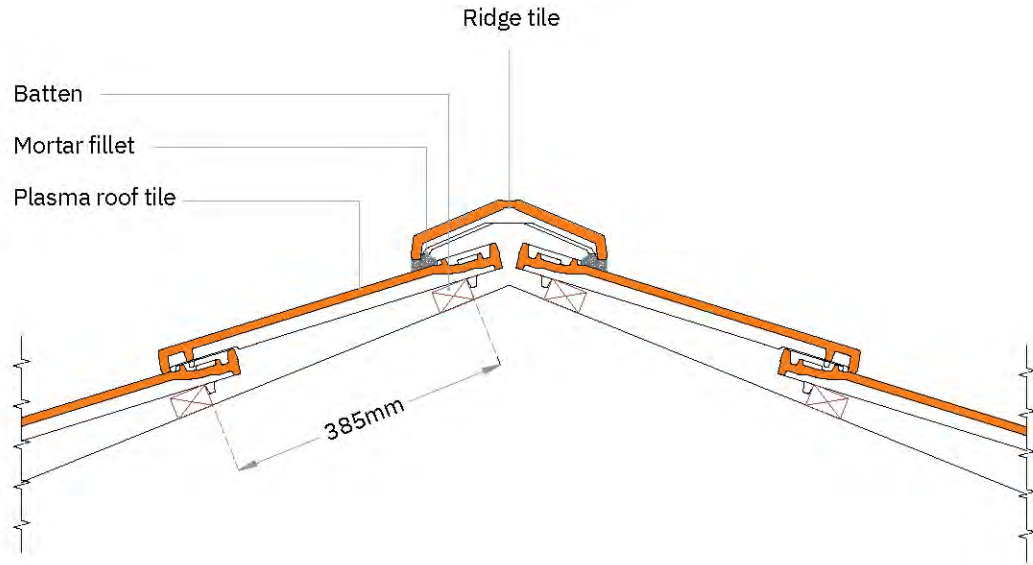


2. Isometric view (2 PV modules application)



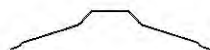
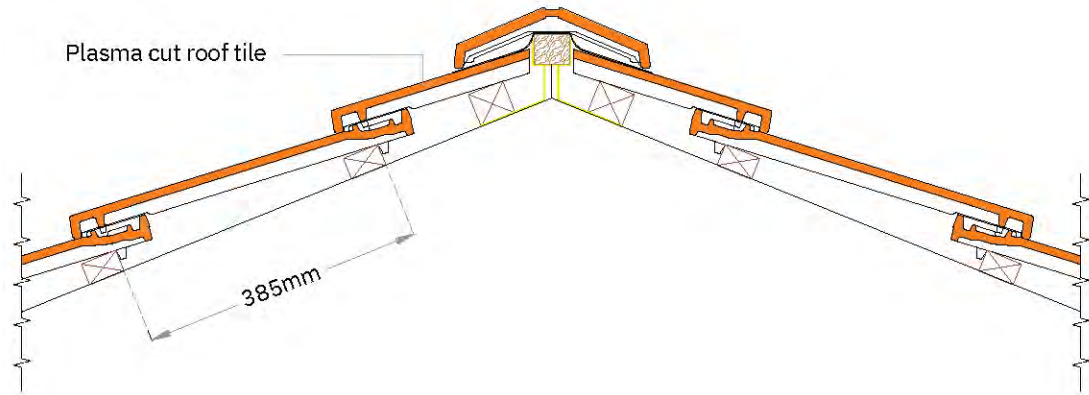
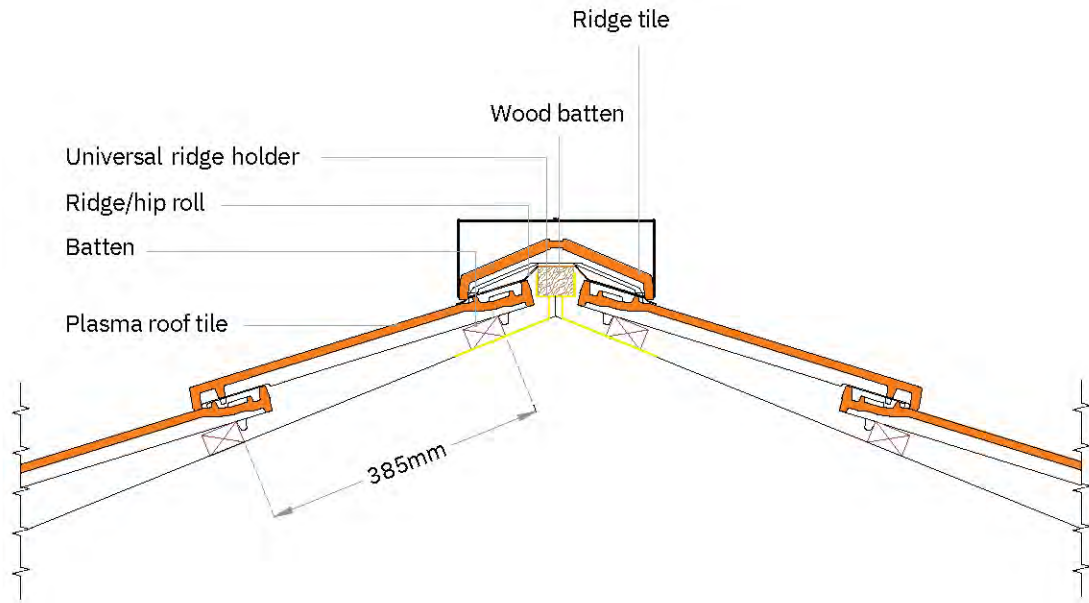
ridge tile detail

application with mortar



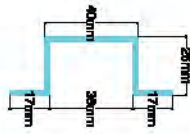
ridge tile detail

Dry application

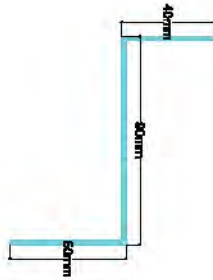


Roll to use on ridges and hips.

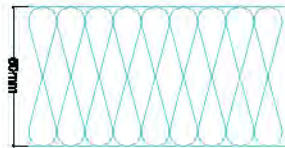
Lohas PLASMA Aluminium Profiles



Omega aluminium profile



"Z" Aluminium profile



Thermal insulation
(expanded polystyrene - plates with
1000 x 1000 x 60mm)

Omega aluminium profile

Plasma facade tile

Thermal insulation
Wall

Fixing clip (10mm)

"Z" aluminium profile

self-drilling screw
4.8mm x 50mm

sealing washer (16mm)

Fixation point

"Z" aluminium profile

Omega aluminium profile

Plasma facade tile
Plasma facade tile

Thermal insulation
Wall

25mm
90mm

1002mm

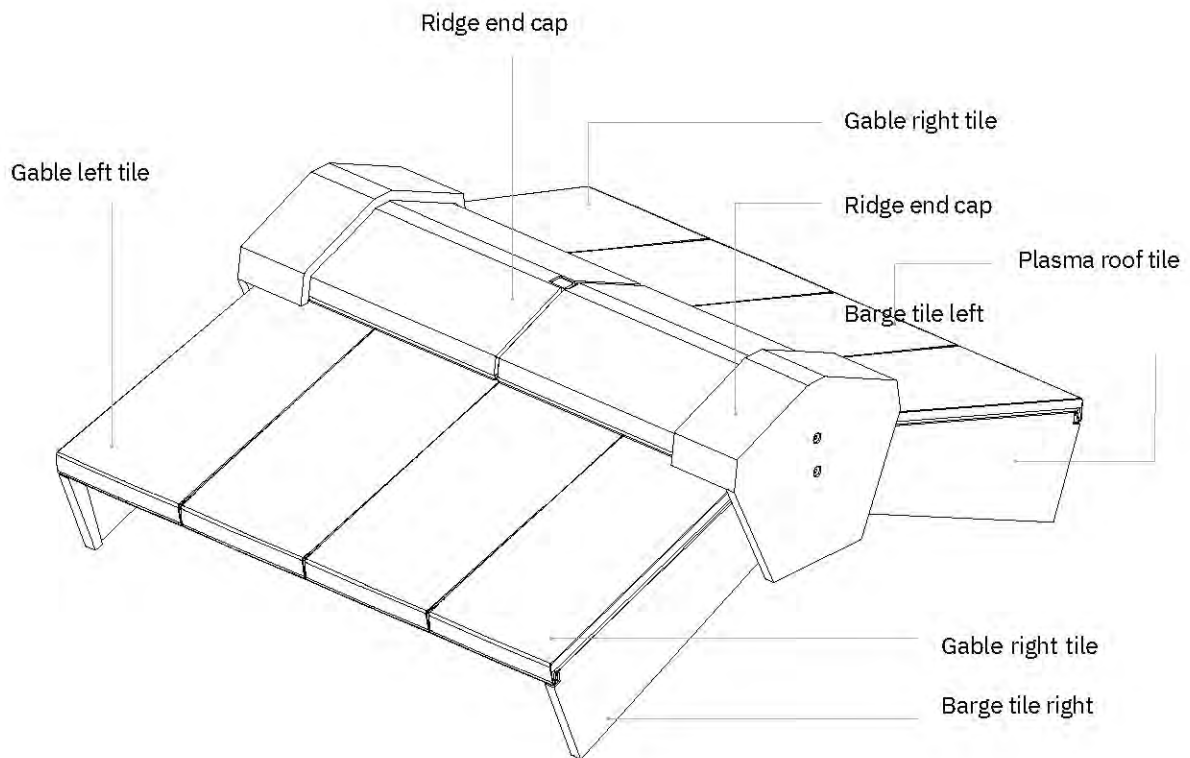
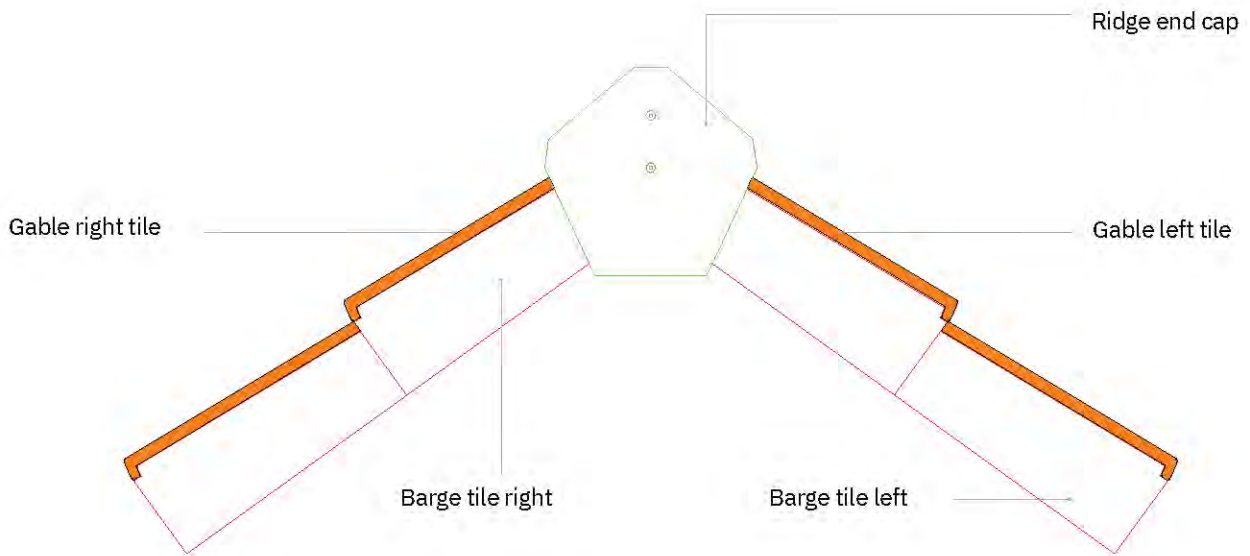
211mm

1002mm

90mm

Fixation point

RIDGE DETAIL



special finishing situations

Ridge tile

Fillet of mortar

Plasma roof tile

Batten

1. Ridge of a mono pitch roof

Wall

Flashing

Plasma roof tile

Batten

2. Emerging wall at the top of the sloping plane

Plasma roof tile

Wall

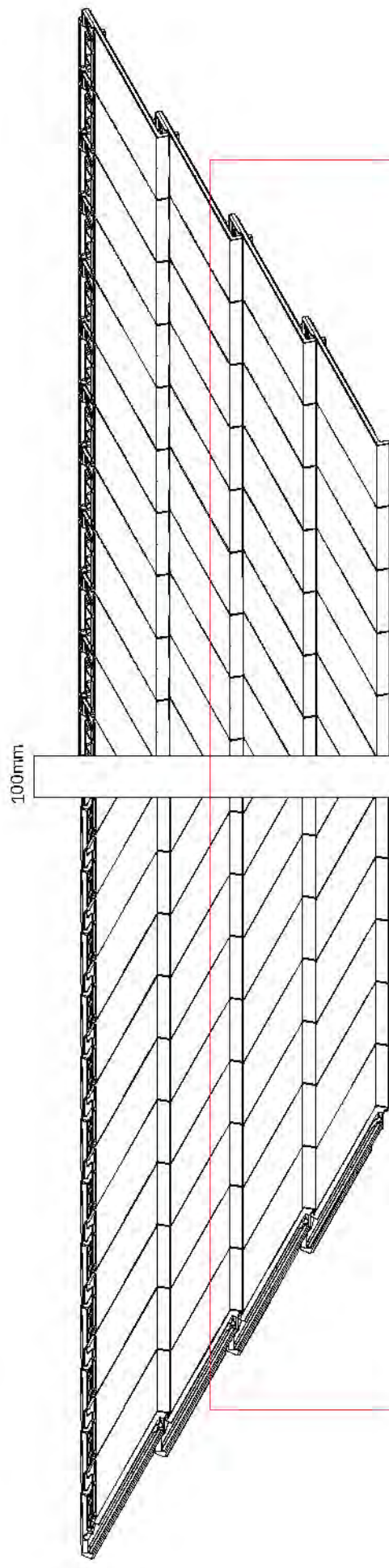
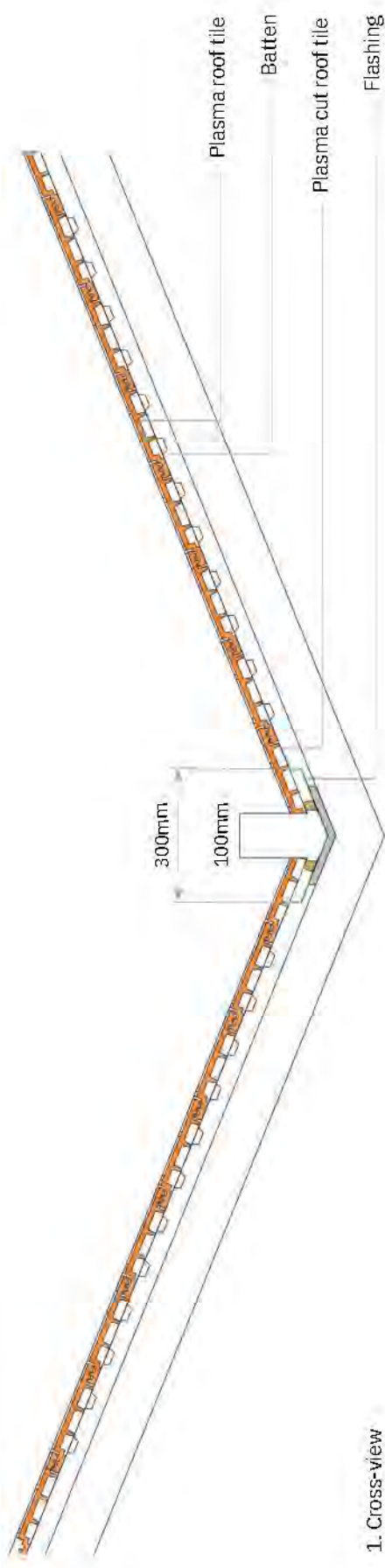
Flashing

Batten

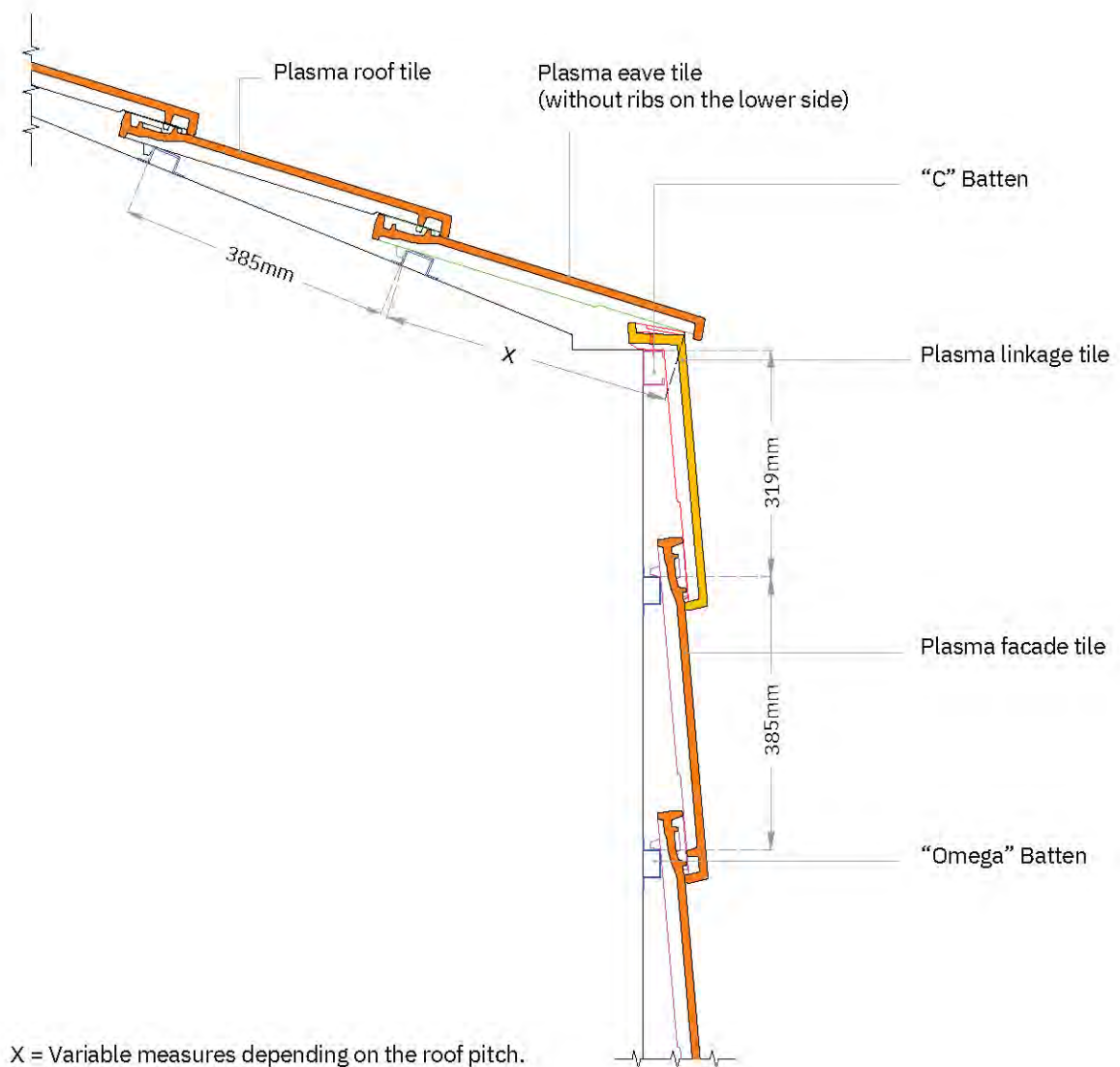
Levelling batten

3. Emerging wall at the bottom of the sloping plane

valley detail



wall roof linkage



Notes:

Plasma allows the possibility of simultaneous use on the roof as well as on the facade (there are specific accessories to do this interface). It has two pre-holes so that it can be vertically fixed, with self-drilling screws and washers, LOHAS also developed an additional metallic "clip" for using one in each tile of the facade. The use of Plasma roof tile on the facade, should always implicate the previous evaluation and advising from LOHAS technical department, through the analysis of the architecture project. It is not advisable to fix Plasma roof tile using nails, however, opting for this method the tip of the nail should be adapted to prevent cracking or breaking during application.

LOHAS

CONTACT US

P 02 9566 2114
E info@lohasau.com

W lohasau.com
IG [@lohas_australia](https://www.instagram.com/lohas_australia)

LOHAS Australia is a proud distributor of the CS product range.

