La Escandella

# PLANUM

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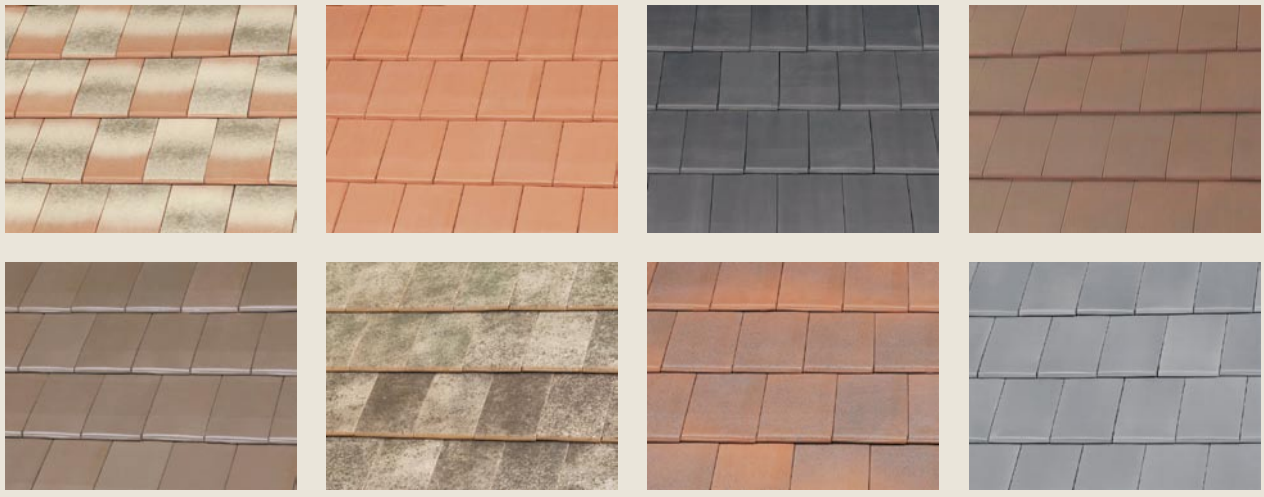
## The essence of a traditional material for today´s architectural language

Its design and size make the installation easier and faster, lowering installation time and cost. Planum tile, available in several colors and finishes, it's a solution where aesthetical and functionality are combined to provide a versatile roof of unprecedented simplicity and elegance.

## colour range

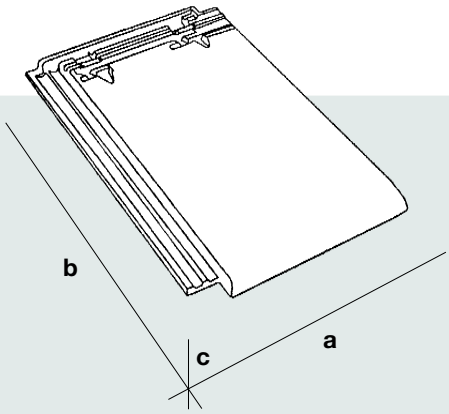


hispania | red | slate | burgundy

brown | lucentum | jaspee red | grey

Planum roof tile complies with the European standard for clay roof tiles EN-1304.
Daily tests are carried out in our laboratory and they are audited by external official laboratories.
Terracotta is a natural product, thus presenting slight natural variations in color shades. Printed Reproduction of the colours shown may not depict these variations.

# characteristics

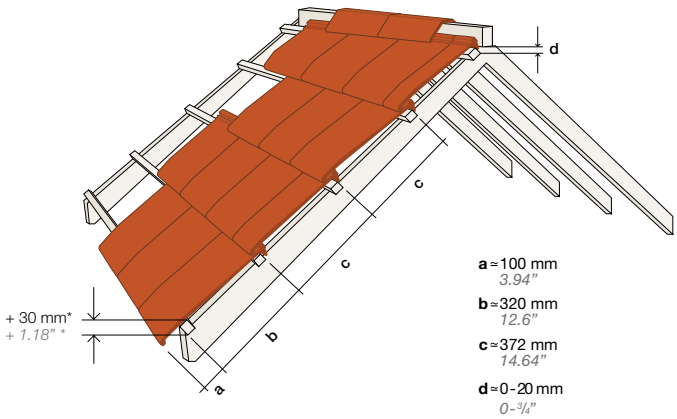



WARRANTY 35 YEARS

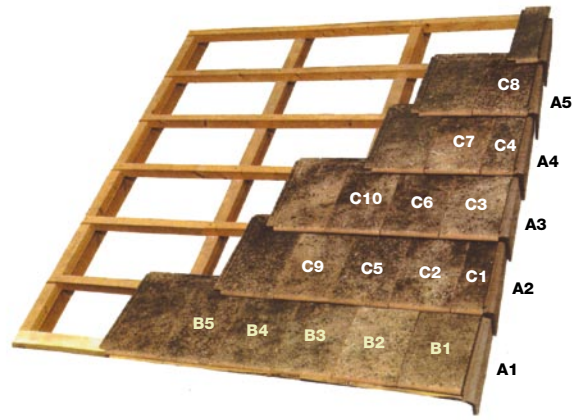
| | |
|---|---|
| Dimensions | **a**: 280 mm; **b**: 450 mm; **c**: 32 mm<br>*a: 11"; b: 17.72"; c: 1.26"* |
| Pieces /m² / *Pieces/square* | 10.5 / *97* (at a fit of 372 mm / *14.65"*) |
| Weight piece | 3.8 kg / *8.37 lbs* |
| Longitudinal fit* | 372 mm +4; -2 mm; / *14.65" +/- 0.16"* |
| Transversal fit* | 250 mm - 260 mm / *9.84" - 10.24"* |
| Average weight / square | 368.77 kg / *813 lbs* |
| Laying method | Broken bond |

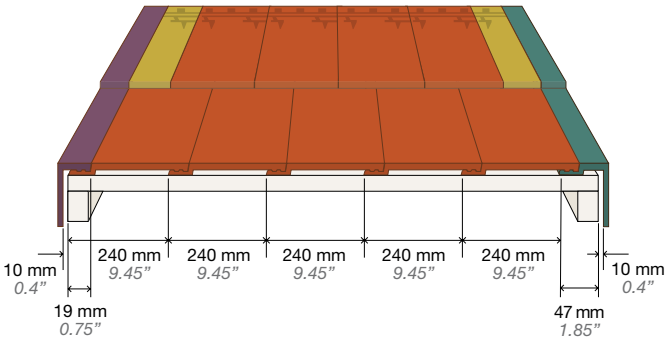
*Theoretical data. It is recommended to calculate this measurement at building site. These measurements include a +/-2% normative tolerance

# laid method




*First course batten should be 30 mm (1.18") higher than all succeeding course battens to provide a vertical alignment and to assure a symmetrical installation.




Planum roof tile
**Q85** Planum half roof tile
**Q88** Planum right side course / rake
**Q89** Planum left side course / rake

Planum roof tile can be laid on a continuous frame, which has to be completely flat in order to ensure the right laying of tiles and their fixing components (to avoid water-leaking); or on a discontinuous frame or battens, which will be fixed by building a batten counter batten deck or by fixing them directly to the frame.

The laying of Planum roof tile is carried out by broken bond (also referred as cross bond) as follows:

**1.** The starter course will begin with the Planum right side course (Rake trim - Q88) (A1) from the eave to the ridge (A1-A5...).

**2.** The starter course will begin with a full tile (B1). The tiles structuring the eave will have to overlap the side course and fit together one to another. The second course will be started with half tile -Q85- (C1) and will be laid to provide the proper vertical exposure. This exposure is continued through each successive course.

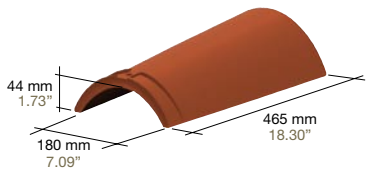
**3.** All joints of the second course and succeeding courses should be at the center line of the previous course, alternating half tiles Q85 (C1) and full tile at the start and at the end of each course.

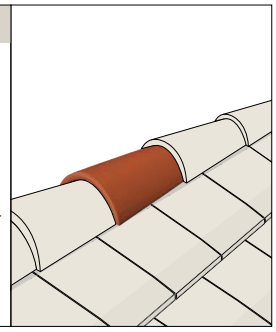
# accessories

La Escandella offers a complete line of Planum accessories, available in any color to customize your roof.

**Q02** Round ridge 2.5 pcs/ml (1ml/3.28')

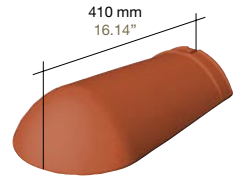
3800 g / 8.38 lbs

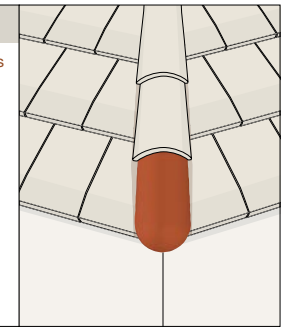


**Q04** Round end ridge

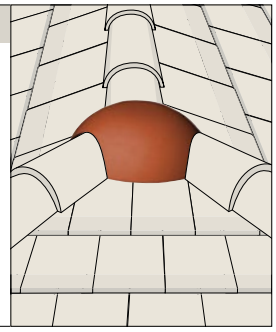
3600 g / 7.94 lbs



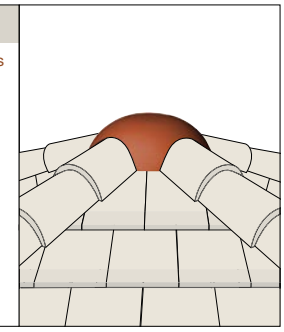
**Q44** Round 3 way ridge

4600 g / 10.14 lbs

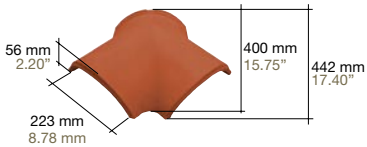
**Q45** Round 4 way ridge

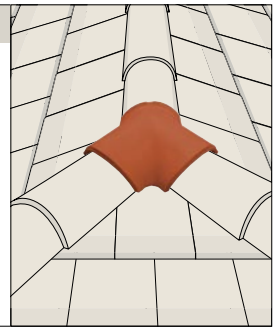
4100 g / 9.04 lbs

**Q55** Round 3 way ridge female

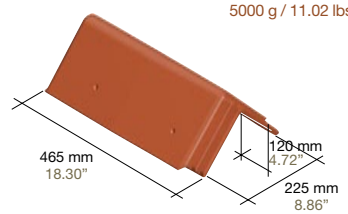
3700 g / 8.16 lbs

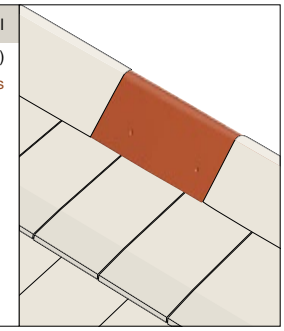


**Q91** Pyramid ridge-side course / rake 2.5 pcs/ml (1ml/3.28')

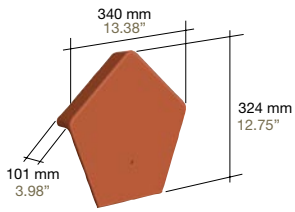
5000 g / 11.02 lbs

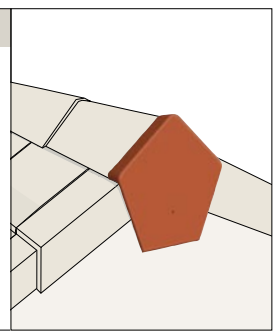


**Q92** Pyramid end cap

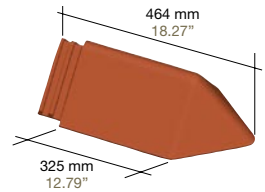
2500 g / 5.51 lbs

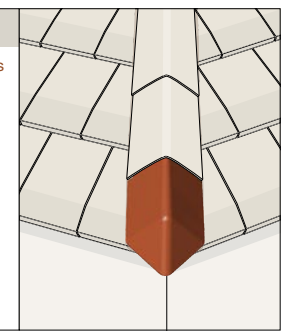


**Q93** Pyramid end ridge

3750 g / 8.27 lbs

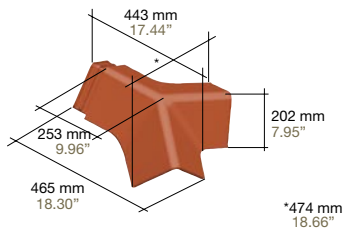


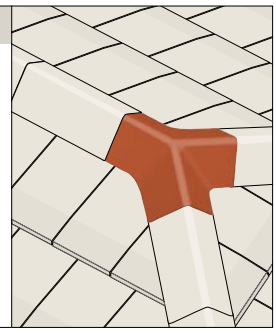



La Escandella

**Q94** Pyramid triple ridge

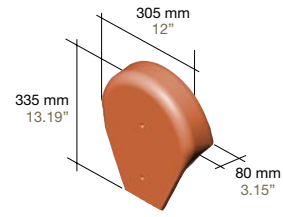
5550 g / 12.12 lbs

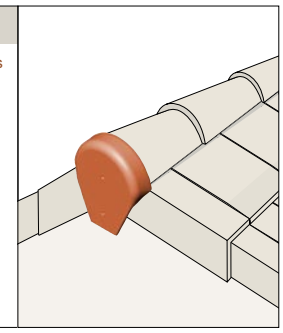


**Q83** End cap round ridge

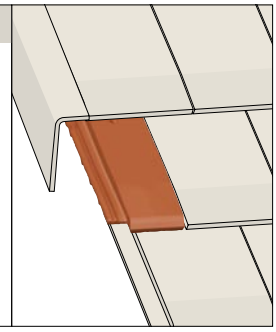
2600 g / 5.73 lbs



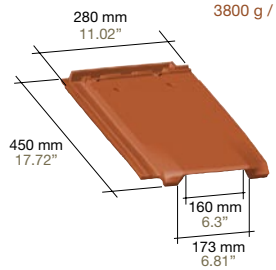
**Q85** Planum half roof tile

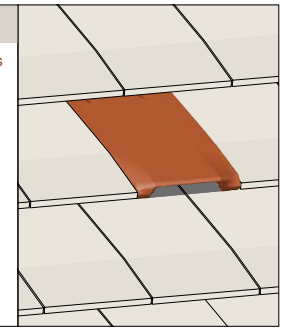
2000 g / 4.41 lbs

**Q86** Planum ventilation roof tile

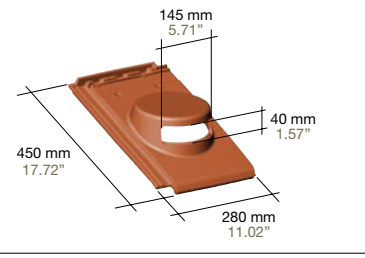
3800 g / 8.38 lbs

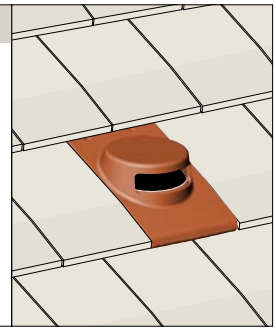


**Q87** Planum chimney 160 / pipe tile

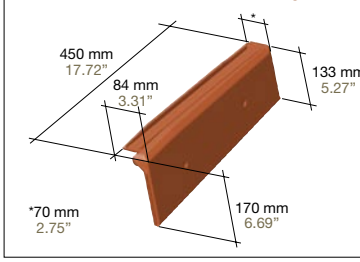
4500 g / 9.92 lbs

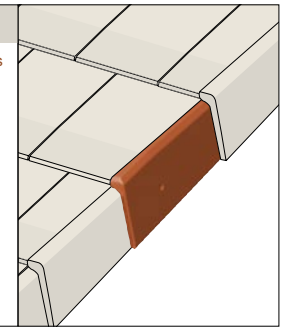


**Q88** Planum right side course / rake

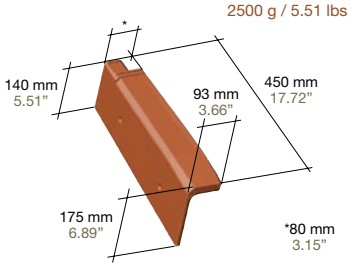
2300 g / 5.07 lbs

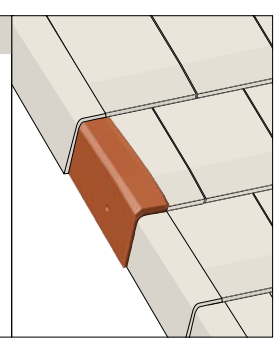


**Q89** Planum left side course / rake

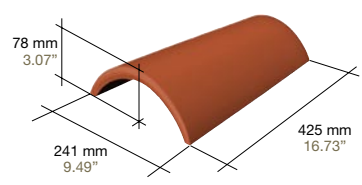
2500 g / 5.51 lbs



**Q108** English ridge

3800 g / 8.38 lbs



# slopes / pitches

The minimum pitch standard recommendations, should always be followed (see values in the referral table). On all pitches below the standard recommended minimums, or in regions where ice dams may occur, a waterproof underlayment on the entire deck MUST be applied.

Most problems with water-shedding roof installations occur from water that migrates through the joints of the tiles through capillary action, wind-driven rain, and runoff or ice damming. Because of this possibility, the underlayment is critical to the success of the roof.

The manner in which tile roofs are installed makes them a highly effective water shedding assembly that affords years of service and protection. The effectiveness of a tile roof system as a weather resistant assembly however depends on the proper installation of all the tile roof components, and installing them properly is critical to the performance of the installed system.

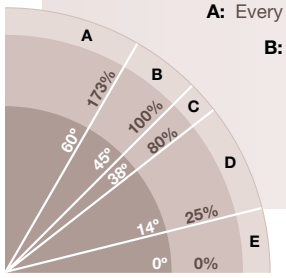
Since tile is installed across a wide range of climatic and geographic conditions, there are a variety of details that must be considered in preparing an effective installation. Local building officials should always be consulted to learn of special requirements that may exist.

| Hip: | < 6,5m<br>< 21.32' | 6,5m - 9,5m<br>21.32' - 31.16' | 9,5m - 12m<br>31.16' - 39.37' |
|---|---|---|---|
| Protected* | 45% / 24,5° | 50% / 26,5° | 55% / 29° |
| Normal* | 50% / 26,5° | 55% / 29° | 65% / 33° |
| Exposed* | 65% / 33° | 75% / 37° | 85% / 40,5° |

***Protected locations:** hollow area which is surrounded by hills that protect the hollow from the winds in all directions.

***Normal locations:** Flat area, plateau with minimal elevation changes.

***Exposed locations:** Places open to strong winds, coastal areas (up to 5 km / 3 miles from the shoreline ), islands or narrow peninsulas, estuaries or closed bays, narrow valleys, isolated mountains, mountain passes and earthquake zones.




**A:** Every tile should be securely fastened (Nailed, screwed, clipped...) (60° / 20¾:12)

**B:** As a minimum, each tile in every five proportion, should be secured with (10 gauge) non-corrosive ring shank nails or screws (45° / 12:12)

**C:** Each tile hangs on the batten (held by the nib) (38° / 10:12)

**D:** Each tile hangs on the batten, held by the nib. When mortar is used, back bed and face point with color matched mortar. Clean off all excess mortar from the face of the tiles. For Foam Adhesive, refer to local building codes.

**E:** La Escandella recommended minimum slope requirements is 25% (3:12)

# ventilation

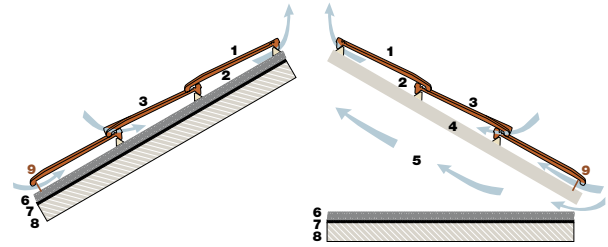
The key to a good and well preserved roof is a good ventilated roof. Vertical batten boards, of sufficient height, are recommended above the deck to create an upper airway and allow free drainage of any moisture that get under the tiles.

The need for proper attic ventilation is required by most building code authorities. These codes recognize that the proper ventilation is a necessary component of any successful steep slope roof system. A free flowing ventilation area must be provided through the roof deck. This ventilation should be evenly distributed throughout the roof space so eliminating any dead air space. Stopping air exfiltration is the key to avoiding condensation problems. Check with local building official for local/state requirements.

La Escandella strongly recommend a good ventilated roof. La Escandella recommends a minimum of Planum VENTILATION TILE for every 7m$^2$ (1.3 ventilation tiles per square) and with a minimum of 2 ventilation tiles per roof surface, installed on the upper part of the roof. Air should be able to flow through the ridge and eaves; be sure not to close these off with mortar.

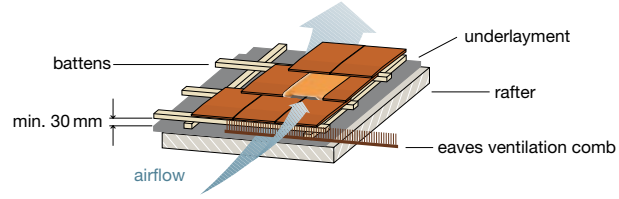
Consideration should also be given to the installation of a thermostatically controlled air exchanger system in the attic, especially in areas that experience long periods of hot humid weather.

Non-ventilated roof | Ventilated roof



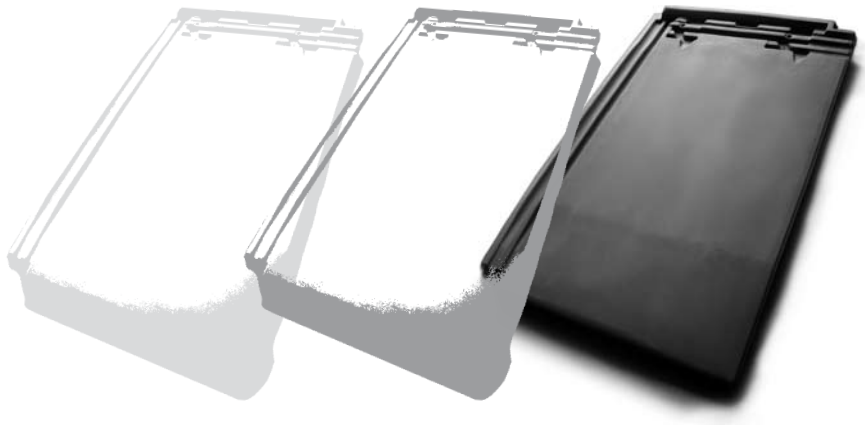

**1.** Roof tile
**2.** Micro-ventilation void
**3.** Ventilation roof tile
**4.** Rafter
**5.** Attic
**6.** Heat insulation underlayment
**7.** Waterproof underlayment material
**8.** Frame
**9.** Eaves ventilation

Openings at the eaves and the ridge must allow for even distribution of ventilating air below the entire roof deck.



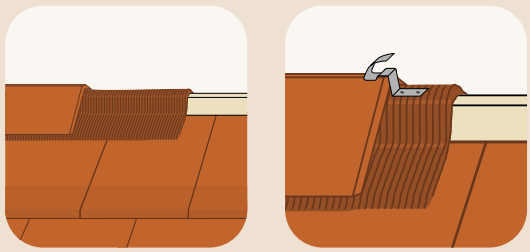

Note 1: Recommended underlayment installed over the sheathing are dependant on the roof pitch and local weather conditions.
Note 2: Underlayment materials must be covered with tile as soon as possible to prevent degradation from exposure.

# PLANUM



Roof tiles should always be installed in accordance with the local building codes and good tiling practice. (Spain: UNE 136020 Code of Practice)
La Escandella is not familiar with all local building codes or regional weather conditions and does not control the installation of the tiles. The architect, roofer or installer should ensure that the tiles are installed in accordance with the local building codes and good tiling practice.

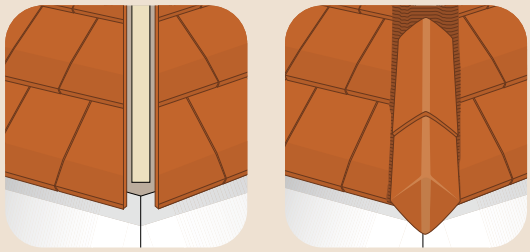
## installation details



### Ridge:

-Apply “La Escandella Alu-Roll for ridges and hips” (or similar) along the centre line of the ridge batten and fasten to the ridge nailer.

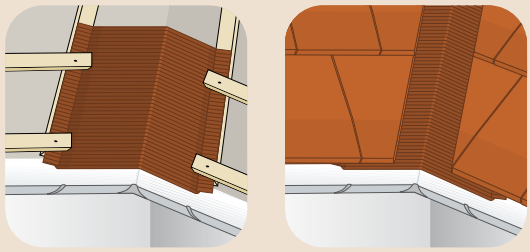
-Fix special ridge tiles with a minimum overlapping of 5 cm (1.97”) on top of the tiles, placing them in opposite direction of the blowing winds.



### Hip:

-Cut the general tiles closely to the hip timber and at the same relative angle.

-Fix “La Escandella Alu-Roll for ridges and hips” and special pieces for hip as above mentioned for ridges.



### Valley:

-Install valley battens on each side of the valley crease. Apply "La Escandella" Alu-roll Valley (or similar) over the valley battens. Alu-roll must overlap the ridgeline and should be extended along the eaves to finish at least, as per minimum building codes requirements, above the outside wall.

-At valleys, straight cut field tiles to allow a minimum 15 cm (6”) open channel. Secure cut field tiles to the horizontal battens.

Note: Consult local building code officials to learn of special requirements that may exist.

# La Escandella

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