TRADITIONAL

La Escandella

# CURVED



La Escandella

ROOFING THE WORLD





# CURVED
## MISSION BARREL

### Renewal of a beautiful tradition

Traditionally, this 2 piece tile, also referred to as Mission barrel, has been the most frequently used roof tile in Europe and in Spanish Colonial Buildings in the New World. Today, this tile is used in the construction of new homes, due to the beauty and wide variety of colours available. It is also used to restore beautiful historic roofs that have been enhanced by natural weathering over time.



# COLOURS & FINISHES





GALIA
T5



AITANA
T5 / T4



LUCENTUM
T5 / T4



CASTELL
T5 / T4



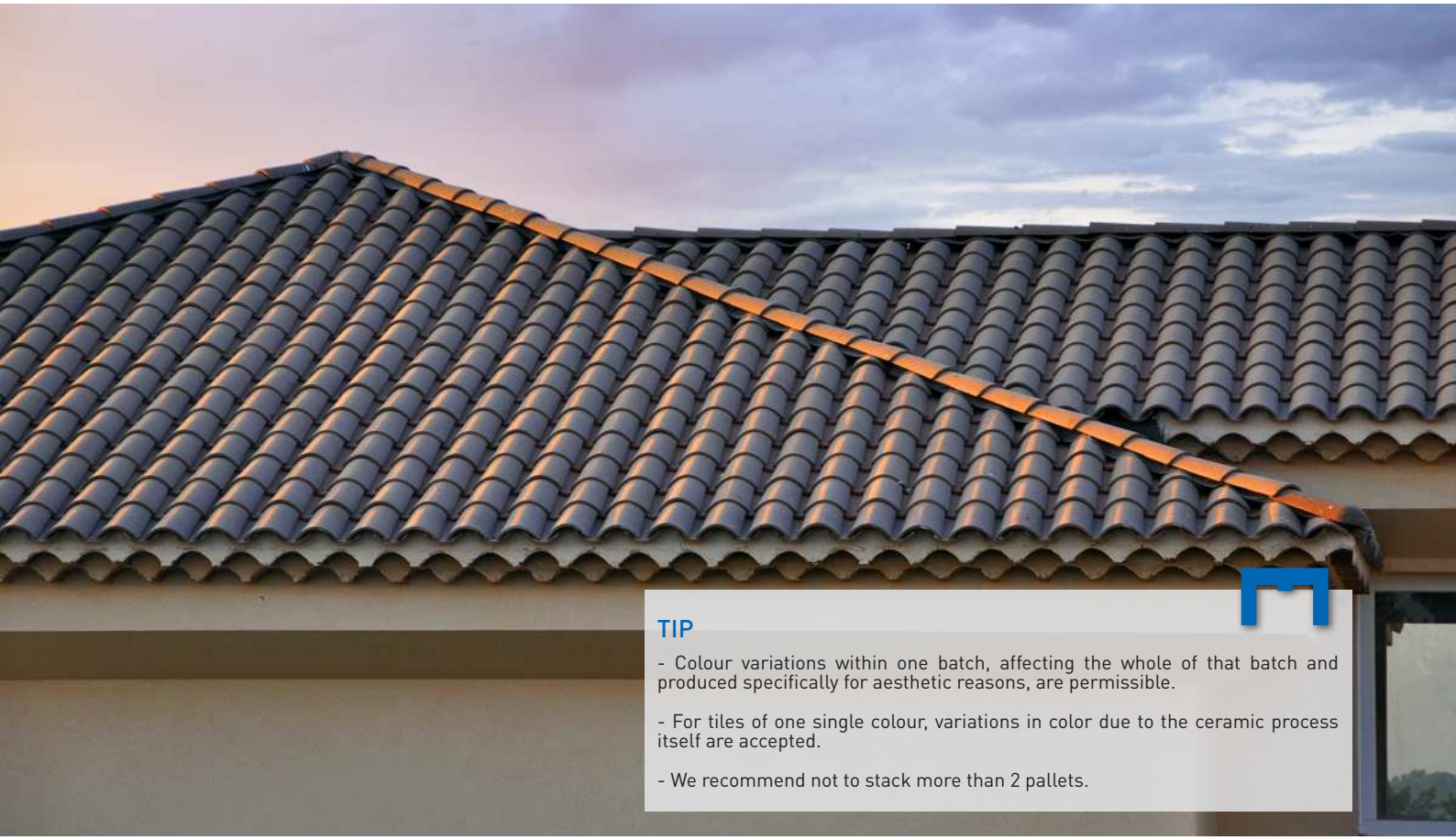
RED
T5 / TT5 / T4 / T40 / T45 / T3 / T2 / T1



JASPEE RED
T5 / TT5



HISPANIA
T5 / TT5 / T40



**TIP**

- Colour variations within one batch, affecting the whole of that batch and produced specifically for aesthetic reasons, are permissible.

- For tiles of one single colour, variations in color due to the ceramic process itself are accepted.

- We recommend not to stack more than 2 pallets.



BROWN
T5 / T40



MILENIUM
T5



PAJA
T5 / T4 / T2 / T1



FLAMED PAJA
T4 / T2 / T1

The names of the colours shown in the photos, only represent the finishes of the models identified as Curved Mission Barrel

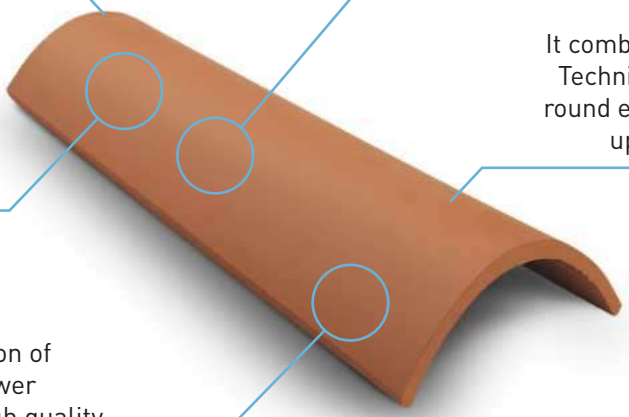
# CURVED

GUARANTEE 35 YEARS La Escandella

### Colours and Textures
A variety of colours and textures allow accurate imitation of aged tiles with the guarantee of modern tiles

### Higher Resistance
The composition of the clay and its perfect design, allow higher flexion than the standards require

### High Water Impermeability
A selection of quality clays together with high temperature cooking/baking grant the tile very low water absorption



### Easy Installation
It combines the Curve´s Elegance, Technique and perfect Design. Its round edges allow a perfect fit, tile upon tile and better handling

### Great Versatility
For both the Renovation / Restoration of Emblematic buildings as for the newer Buildings, the Curve tile offers a high quality finish and fine touch

| | |
|---|---|
| **Flexural Strength test (EN 538)** | Resistance > 1200N |
| **Water Impermeability (EN 539-1)** | Complies with level 1 |
| **Frost Resistance (EN 539-2)** | Complies 150 cycles |

## TECHNICAL CHARACTERISTICS

| | T5 | T45 | T4 | T40 | TT5 |
|---|---|---|---|---|---|
| Dimensions*[1] | A 500 mm / 19.68" | A 450 mm / 17.71" | A 408 mm / 16.06" | A 408 mm / 16.06" | A 495 mm / 19.49" |
| | B 210 mm / 8.27" | B 200 mm / 7.87" | B 180 mm / 7.10" | B 150 mm / 5.91" | B 220 mm / 8.66" |
| | C 170 mm / 6.70" | C 160 mm / 6.3" | C 140 mm / 5.51" | C 116 mm / 4.57" | C 156 mm / 6.14" |
| Pieces per m²/sq | Depending on overlapping*[2] / 162 | 22.7 | 28 / 301 | 34 | 9 / 83 |
| Pieces per lm. | 2.4 | 2.7 | 3 | 4 | 2.4 |
| Weight per piece | 2.55 kg / 5.62 lbs | 1.95 kg / 4.30 lbs | 1.60 kg / 3.53 lbs | 1.35 kg / 3.00 lbs | 2.80 kg / 6.17 lbs |
| Units per pallet | 250*[3] | 550 | 720*[4] | 728 | 175 |
| Weight per pallet | 701 kg 1,545 lbs | 1,073 kg 2,366 lbs | 1,152 kg 2,540 lbs | 983 kg 2,167 lbs | 490 kg 1,080 lbs |

*[1] The Tile dimensions indicated in this chart, allow a tolerance of approximately ±2%.

*[2] Depending on overlapping: 70 mm / 2.75" (18 pieces / m²); 100 mm / 3.93" (18,9 pieces / m²); 150 mm / 5.9" (20 pieces / m²)

*[3] Except for colour Paja -2.10 kg / 4.63 lbs / piece - 300 units/pallet - 630 kg / 1,389 lbs /pallet

*4 Except for colour Paja and Flamed Paja - 624 units/pallet - 998 kg / 2,200 lbs /pallet

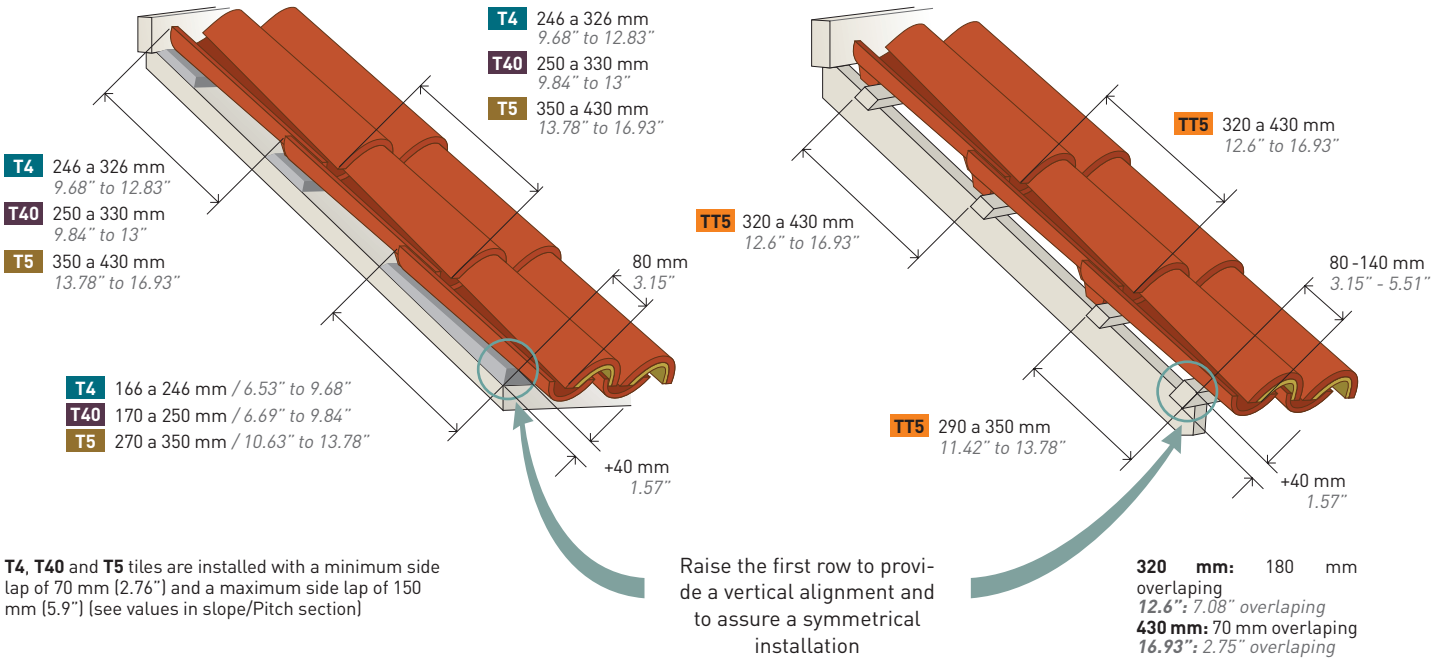
CE AENOR EN 539-2 Test of frost resistance · EN 539-1 Impermeability · EN 538 Flexural strength test · EN 1024 Geometric characteristics · MIAMI-DADE COUNTY APPROVED * · ICC ES * · NF * · NATURAL PRODUCT silicone free

* (Valid for T5)

NOTE: during the manufacturing process, handling or transport, small friction can occur on the gloved decorated roof tiles, due to the contact of support of some tiles on others. Such friction doesn't affect the structure of the tile or its quality. It's only perceptible on the hand and, therefore, comply with the guarantee of Cerámica La Escandella.

# COLOCACIÓN

## LONGITUDINAL FIT



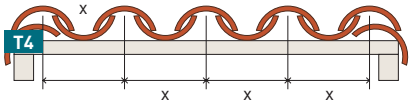

**T4**, **T40** and **T5** tiles are installed with a minimum side lap of 70 mm (2.76") and a maximum side lap of 150 mm (5.9") (see values in slope/Pitch section)

Raise the first row to provide a vertical alignment and to assure a symmetrical installation

**320 mm:** 180 mm overlaping
***12.6":*** *7.08" overlaping*
**430 mm:** 70 mm overlaping
***16.93":*** *2.75" overlaping*

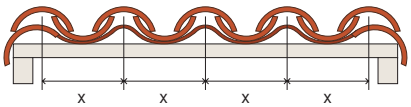
## TRANSVERSAL FIT

### Mortar fixing of clay roofing tiles



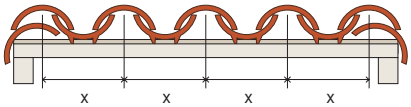

x=230 mm **T40** x=180 mm **T5** x=270 mm

### Fibre cement corrugated sheets fixing Escandella (pre-engineered roof system)




**T4** x=230 mm **T40** x=180 mm **T5** x=230 mm

### Teton (Barrel nose) tile fixing




**TT5** x=270 mm

### TIP

Widthwise or lengthwise laid suggested in the technical catalogues are theoretical. The roofer must calculate the real widthwise or lengthwise laid of the tiles to be installed according to the methods defined in the rules in force in our installation manual.

Tiles are manufactured with natural components and fired at high temperature which generates small dimensional variations.

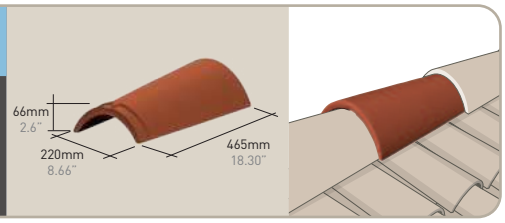
Download the INSTALLATION MANUAL

# ACCESSORIES

To satisfy all needs and allows a perfect finish to your roof, La Escandella offers a wide range of specific accessories for the Curved Roof Tile, available in all its colours.

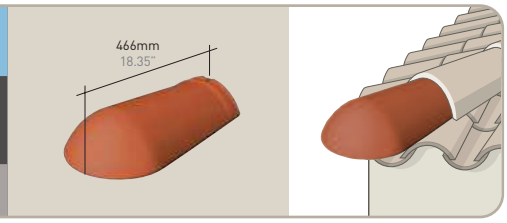
**Round ridge / Hip -** Curved 50

Q02
3,400 gr
7.5 lbs
2.5 pcs/ml
0.75 pcs/lft



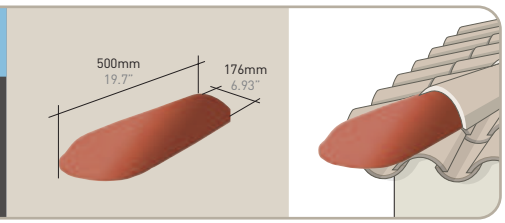

**Round ridge end / Hip starter -** Curved 50

Q04
3,300 gr
7.28 lbs
With Q02



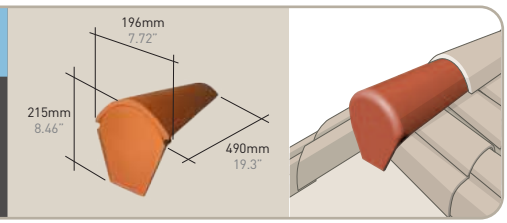

**End -** Curved 50

Q69
2,800 gr
6.17 lbs



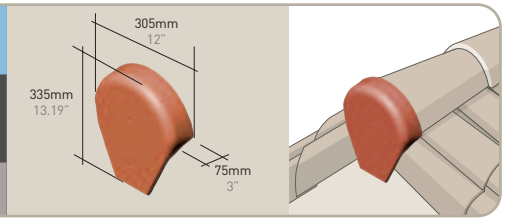

**End cap -** Curved 50

Q68
3,700 gr
8.16 lbs



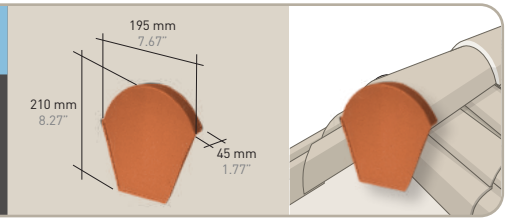

**End cap round ridge -** Curved 50

Q83
2,500 gr
5.51 lbs
With Q02



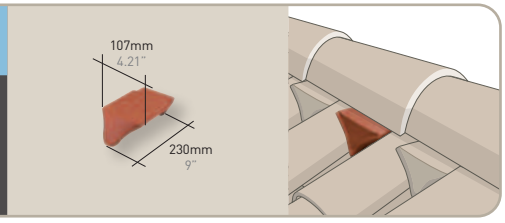

**Only End cap -** Curved 50

Q58
850 gr
1.87 lbs



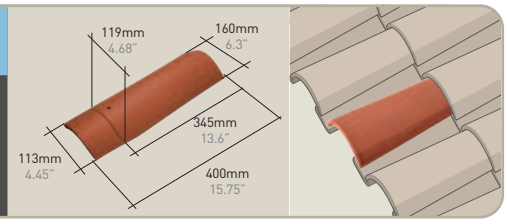

**Wedge Curved roof tile -** Curved 40x15

Q52
580 gr
1.28 lbs



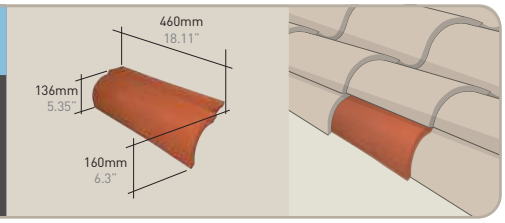

**Eave Curved roof tile -** Curved 40x15

Q67
1,300 gr
2.86 lbs



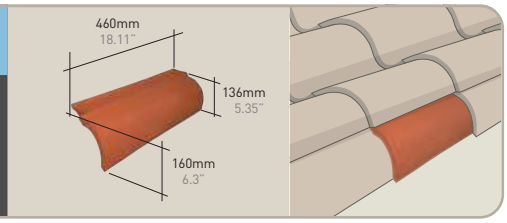

**Round left side course / rake -** Curved 50

Q12
2,600 gr
5.7 lbs
3 pcs/ml
0.9 pcs/lft



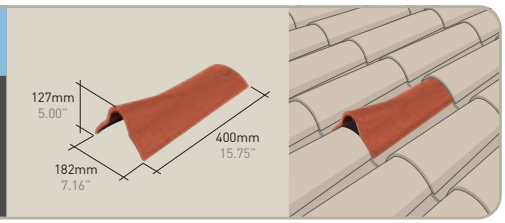

**Round right side course / rake -** Curved 50

Q13
2,600 gr
5.7 lbs
3 pcs/ml
0.9 pcs/lft



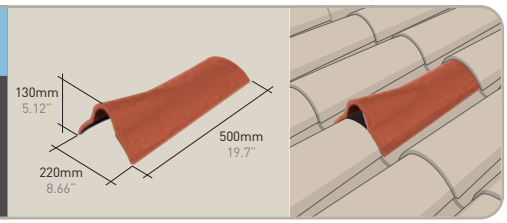

**Ventilation tile -** Curved 40x18

Q22
2,400 gr
5.3 lbs



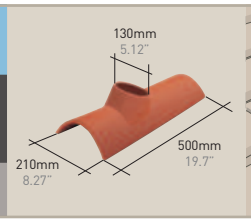

**Ventilation -** Curved 50

Q23
2,900 gr
6.4 lbs




**Chimney support -** Curved 50

Q66
2,900 gr
6.4 lbs
With Q54

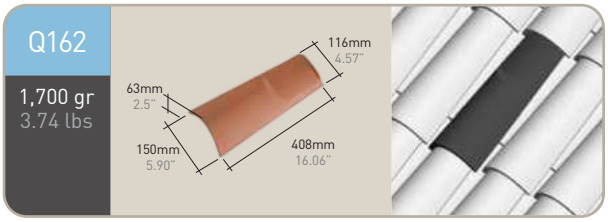



**Chimney -** Curved 50

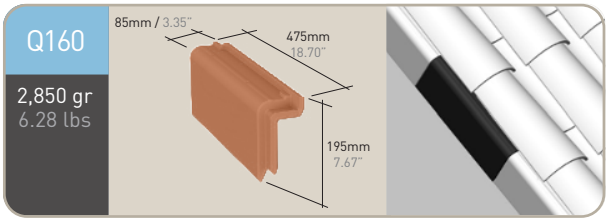
Q54
2,400 gr
5.3 lbs
Ø 11.5 cm
Ø 4.53"
With Q66



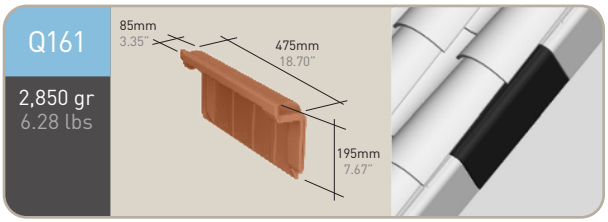
**Ventilation -** Curved 40x15



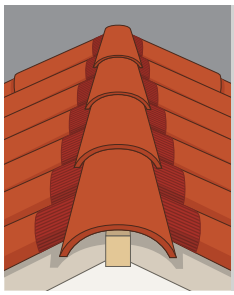

**Left side course roof tile -** Curved 40x15




**Right side course roof tile -** Curved 40x15

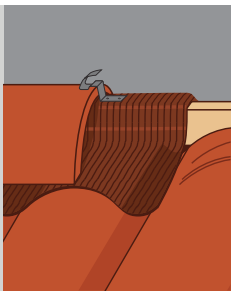


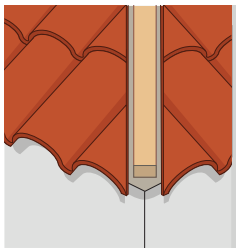

# INSTALLATION DETAILS



## RIDGE

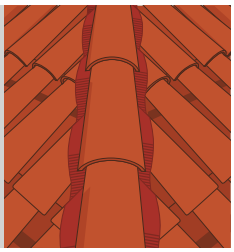
- Ridge tiles must be installed lap facing away from the prevailing winds, in order to assure water tightness.
- Field tiles at top course should be secured directly either into the deck or top batten with stainless ring screw nails or similar.
- All ridges and hips shall be covered with self adhesive Alu-Roll, La Escandella Aluminum roll for hip and ridges (CAM01, CAMF1, CAM09, CAMF9), or similar approved breathable waterproof underlayment. Underlayment should be secured over the ridge nailer with non-corrosive roofing nails.
- Apply ridge tiles with a minimum overlapping of 5 cm (2") throughout the ridgeline facing away from the prevailing wind-driven rain.

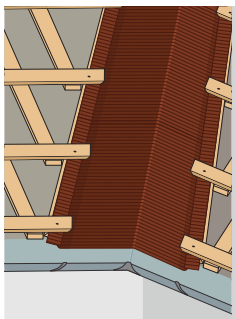




## HIP

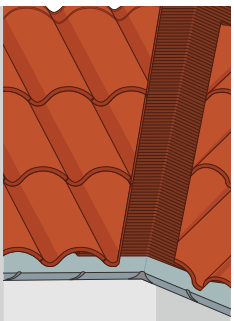
- Hip tiles must be installed in the same way as in the ridge.
- Field tiles must be cut parallel to the hip line and secured.
- All ridges and hips shall be covered with self adhesive Alu-Roll, La Escandella Aluminum roll for hip and ridges (CAM01, CAMF1, CAM09, CAMF9), or similar approved breathable waterproof underlayment.
- Air should be able to flow through the ridge and hip area. Be sure not to close these off with mortar or similar. Closing them off could result in cracks, peeling off,... in freezing and thawing cycles.

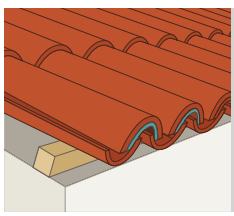




## VALLEY

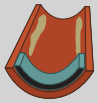
- Both Valley and eave line channel are particularly vulnerable to water migration and leakage. Valleys should have a clear and unobstructed pathway for quick water drainage.
- Install valley battens on each side of the valley crease. Alu-roll Valley (CAM18), or similar approved adhered waterproof valley underlayment, shall be laid vertically up all valleys in addition to other required underlayment that should be fixed by using glue, resin or similar.
- Where valley intersects with ridge line, apply Alu-roll Valley (CAM18), or similar approved underlayment, which should be covered by the ridge tile. Valley should be extended along the eaves to overhang the fascia board by 5cm (2") or over the gutter.
- Tiles should be laid parallel to the valley line, at same relative angle and should overhang the valley battens by at least 10 cm (4").
- Tiles at each side of the valley crease should be laid to provide a minimum 15 cm (6") width gap (tiles should held back minimum 7.5 cm (3") from the center of the valley each way).
- Valley tiles must be secured.
- Proper Valley flashing installation is required to ensure water tightness in order to avoid cracks, peeling off,...



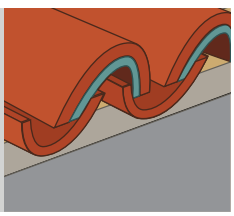


## EAVE

- The tiles structuring the eave will have a min. 5cm (2") and max. 8cm (3.15") overhang at the eave.



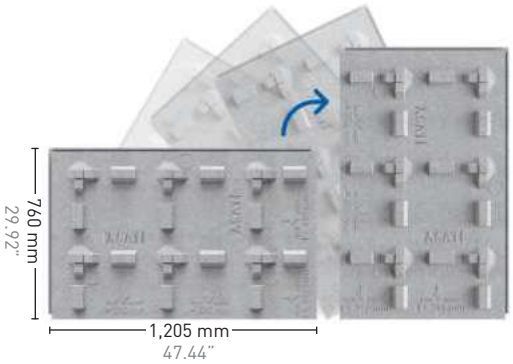
- A booster tile is set and fastened over the lower edge of each pan tile. A starter tile is then fastened over the booster tile at the eave.



# BUILDING SYSTEMS

La Escandella's new installation and insulation systems that are specifically designed for pitched roofs with ceramic tiles. The EscandellaTherm and EscandellaSat systems combine the latest technology in insulation materials with a design to provide an an efficient and healthy solution for the roof.






## ESCANDELLλSAT

VERSATILE INSULATION PANEL
FOR DIFFERENT ROOF TILE MODELS.

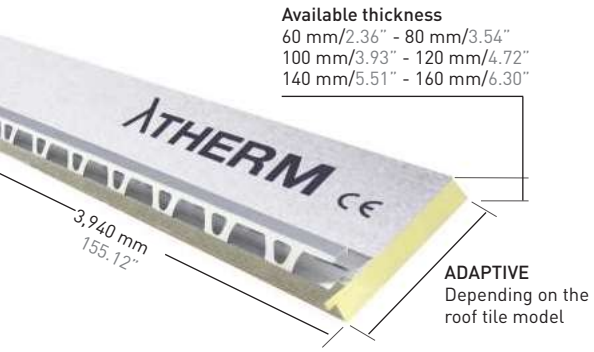
Suitable to install any roof tile with a batten spacing of 37 or 39.5 cm (14.6"/15.6").

λ = 0.031 W/mk

GUARANTEE 15 YEARS BUILDING SYSTEMS

**100% Neopor®**

MORE INFO ON THE WEBSITE




**Available thickness**
60 mm/2.36" - 80 mm/3.54"
100 mm/3.93" - 120 mm/4.72"
140 mm/5.51" - 160 mm/6.30"

**ADAPTIVE**
Depending on the roof tile model



## ESCANDELLλTHERM

VENTILATED ROOF IN 1 PRODUCT.

Self-supporting roof structure - Vapour barrier - Low transmittance thermal inslation
Under-roof waterproofing - Primary batten to create ventilation - Counter battens

λ = 0.022 W/mk

GUARANTEE 15 YEARS BUILDING SYSTEMS

TÜV SÜD

# TECHNICAL INFORMATION

## 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 capillarity action, wind-driven rain, and runoff or ice damming. Because of this possibility, the underlayment is critical to the success of the roof.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PROTECTED LOCATIONS | **Slope** | 26% | 28% | 30% | 32% | 34% | 36% | 38% | 40% | 42% | 44% | >46% |
| | **Slope** | 15º | 16º | 17º | 18º | 19º | 20º | 21º | 22º | 23º | 24º | >25º |
| | **Overlaping** | 15,0 | 14,0 | 13,5 | 13,0 | 12,5 | 12,0 | 11,5 | 11,0 | 10,0 | 10,0 | 7,0 |
| NORMAL LOCATIONS | **Slope** | 26% | 28% | 30% | 32% | 34% | 36% | 38% | 40% | 42% | 44% | >46% |
| | **Slope** | 15º | 16º | 17º | 18º | 19º | 20º | 21º | 22º | 23º | 24º | >25º |
| | **Overlaping** | * | 15,0 | 14,5 | 14,0 | 13,5 | 13,0 | 12,5 | 12,0 | 11,0 | 10,0 | 7,0 |
| EXPOSED LOCATIONS | **Slope** | 26% | 28% | 30% | 32% | 34% | 36% | 38% | 40% | 42% | 44% | >46% |
| | **Slope** | 15º | 16º | 17º | 18º | 19º | 20º | 21º | 22º | 23º | 24º | >25º |
| | **Overlaping** | * | * | * | 15,0 | 14,5 | 14,0 | 13,5 | 13,0 | 12,0 | 11,0 | 7,0 |

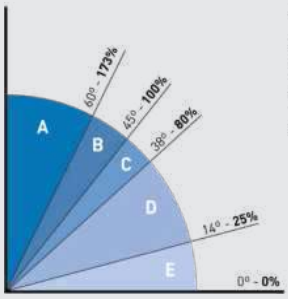
*Critical situation: a waterproofing underlayment on the entire deck MUST be applied.

**Note:** for hips LESS than 6.5m long, in normal locations or unfavorable climatic zone, the 32% slope MUST BE APPLIED.

**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.

## FIXATION

The slope of a roof determines the level of fixation of the tiles required. The fixation of the tiles may be necessary to prevent the sliding of the rooftiles or to prevent their lifting by the effect of the air. **In eaves, right and left side course, lines of ridge, valleys, encounters with vertical walls and other singular points, all the pieces will be fixed.** For all other parts, the level of fixation will depend on the pitch.




**A:** 60º - **173%**
**B:** 45º - **100%**
**C:** 38º -**80 %**
**D:** 14º - **25 %**
**E:** 0º - **0 %**

**A:** Every tile should be securely fastened (Nailed, screwed, clipped...) (60º / 203/4:12).

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

**C:** Each tile hangs on the batten (held by the nib) (38º / 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 30% (4:12).

**NOTE:** The locking function is performed by the metal clamps / hooks. Polyurethane foam acts only as a positioner. Any fastening done with screws, nails, clips etc., must be sealed in order to prevent water entering. All fasteners must be non-corroding.

## VENTILATION

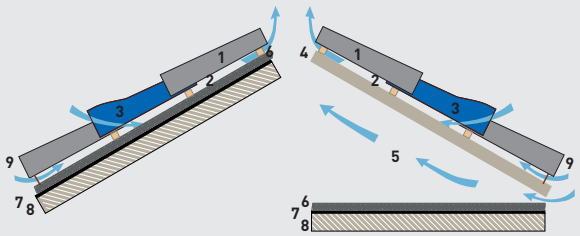
Ventilation is one of key elements to assure a good hygrothermal behavior of the roof and preservation of the roof structure. The key to a good and well preserved roof is a good ventilated roof. Proper installation of Ventilation tiles combined with ventilated roof can result in energy savings, in a more energy efficient home.

Air should be able to flow through the eave and ridge; be sure not to close these off with cement, mortar or similar. Eave and ridge areas should be protected to help minimize the access of birds and vermin infiltration.

A free flowing ventilation area must be provided through the roof deck. This ventilation should be evenly distributed throughout the roof space to eliminate any dead air space.

La Escandella recommends a minimum of 1 ventilation tile (Q22/ Q23) for every 7 m² (1.32 vent tiles per 100 sq ft.) and with a minimum of 2 ventilation tiles per roof surface, installed on the upper part of the roof.

Using a proper ventilation system is the best way to avoid moisture in a roof, that could cause peeling, cracking and other defects on the tile.




**NON-VENTILATED ROOF**
**1.** Roof tile
**2.** Micro-ventilation void
**3.** Ventilation roof tile
**4.** Rafter
**5.** Attic

**VENTILATED ROOF**
**6.** Heat insulation underlayment
**7.** Waterproof underlayment material
**8.** Frame
**9.** Eaves ventilation comb / bird stop

La Escandella warranty will be honored when installation is in strict accordance with local building codes, particularly to those referring to the ventilation of the deck and minimum slope requirements. Clay roof tiles should always be installed in full compliance with the local building codes and good tiling practice. For each country, please refer to local building codes.

GUARANTEE 35 YEARS La Escandella



www.laescandella.com

CATALOGUE LATEST VERSION

Colour Shall be Harmonized but clay tiles are a natural product and some shade variations between individual pieces enhance their beauty and should be expected. All Tiles should be blended regardless of the number of colours supplied. Colours of the tiles shown in this catalogue can not faithfully reflect the colours of the ceramic tiles.

On their products, La Escandella has right to make changes in dimensions, fittings, weight & units per pallet, without previous notice. For more information, please contact your Sales Representative or our Customer Service.

This catalogue, printed in May 2025, replaces the existing ones.