



MIXED "S" Small



La Escandella



# MIXED "S" SMALL

**A double curvature mixed "S" roof tile where eaves and ridge tiles assure design and functionality to provide easy-to-install roofs with the special characteristic beauty of the Mediterranean roofs**

Its small format and great array of accessories, makes this mixed tile compose beautiful and meticulous roofs





## Warmth and delight in our most Mediterranean roof tile

### Double curvature

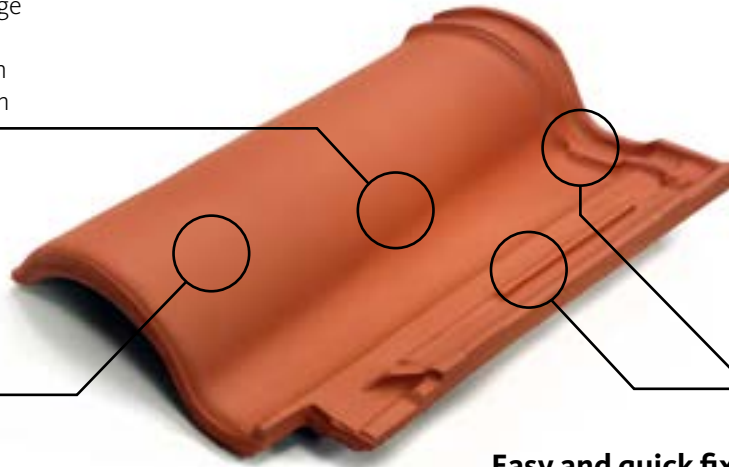
Its double curvature, eave and ridge joints design and functionality as Arab roofs looking. Mediterranean aesthetics with the easiest fixation

### More breakage resistance

Clays composition and perfect press performance make flexion rates higher than even the Standard ones

### Wide range of colors

A roof tile with a wide range of colors and complements to satisfy all professionals' needs and preferences; suitable to all type of roofs (new and aged ones)



### Double interlocking

The double interlocking –horizontal and vertical- allows the roof to be more watertight, ensuring its impermeability

### Easy and quick fixation

Very light and easy-to-use roof tile (12.5 pcs/sqm) that allows both lateral and longitudinal tolerances, therefore achieving great stability



# COLOURS & FINISHES



RED

JASPEE RED



The names of the colours shown in the photos, only represent the finishes of the models identified as Mixed "S"  
Terracotta is a natural product, thus presenting slight natural variations in color shades. Printed Reproduction of the colours shown may not depict these variations.



GALIA

HISPANIA

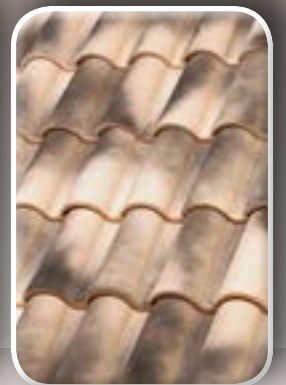
BROWN

PAJA

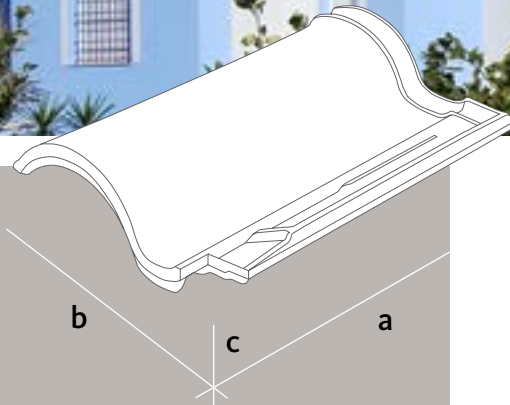
FLAMED PAJA



[WHITE CLAY]



[WHITE CLAY]



# MIXED "S" SMALL

<b>Dimensions</b>	a: 441 mm / 17.36" b: 263 mm / 10.35" c: 73 mm / 2.87"
<b>Pieces per m<sup>2</sup>/sq</b>	12.5 / 116
<b>Weight piece</b>	3.400 gr / 7.5 lbs
<b>Longitudinal fit*</b>	372 mm (± 5 mm) / 14.64" (± 0.2")
<b>Transversal fit*</b>	203 mm (± 4 mm) / 8" (± 0.16")
<b>Units per pallet</b>	180 / 240

\*Theoretical data. It is recommended to calculate this measurement at building site

GUARANTEE  
**35**  
YEARS

	Application Standard	Requirements	MIXED S
<b>Flexural Strength</b>	EN 538	Resistance > 1200N	Above
<b>Water Impermeability</b>	EN 539-1	Complies with level 1 (Method 1)	Above
<b>Frost Resistance</b>	EN 539-2	Level 3 Resistance (Method E - 150 cycles)	Above
<b>Geometric Characteristics</b>	EN 1024	Flatness ≤ 1,5% Straightness ≤ 1,5%	Complies Complies



Test of frost resistance



Impermeability test



Flexural strength test



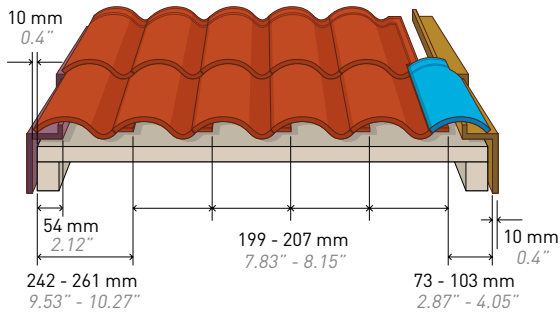
Geometric characteristics

La Escandella tiles meet and exceed the most demanding, strictest standards for fired clay roof tiles. La Escandella Small Mixed "S" tiles complies with European Standard for Clay roof tiles EN-1304. Daily tests are carried out in our laboratory and they are audited by external official laboratories.

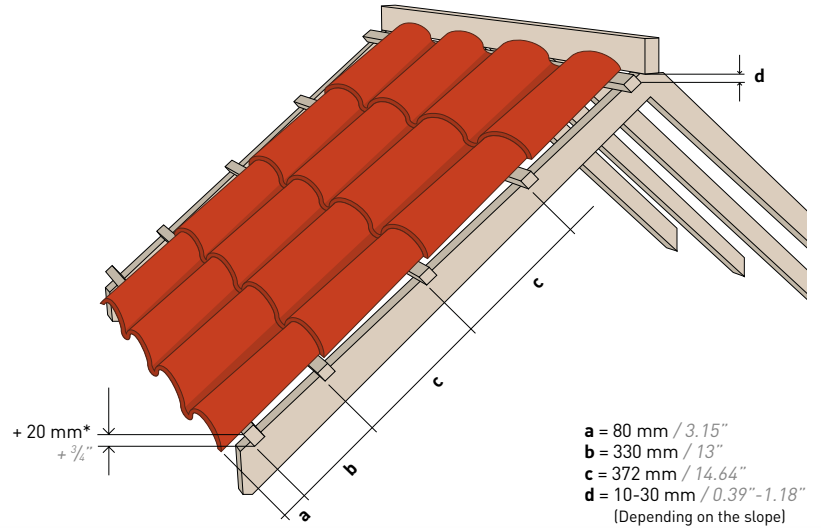
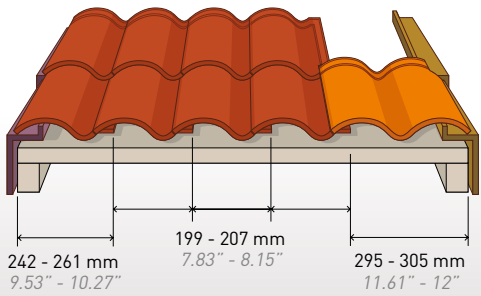




### Half small Mixed "S" roof tile laying



### Double small Mixed "S" roof tile laying



- Small Mixed "S" roof tile
- Q10 Straight left side course
- Q11 Straight right side course
- Q17 Half small Mixed "S" roof tile
- Q34 Double small Mixed "S" roof tile

\*First course batten should be 20 mm (3/4") higher than all succeeding course battens to provide a vertical alignment and to assure a symmetrical installation





## LAI D METHOD

La Escandella interlocking “S” roof tile can be laid on a continuous frame or battens; from left to right in a straight or full bond pattern.

1. Installation will begin with La Escandella Mixed “S” left side courses (rakes) from the eave to the ridge, allowing a 5 cm (2”) overhang at the eave. All side course (rake) tiles shall be installed with fasteners typical of the field tile installations.
2. The starter course will begin with a full tile from the eave to the ridge, allowing a 5cm (2”) overhang at the eave. The tiles structuring the eave will have to overlap the side course (rake) and fit together one to another. The second course of the tile will lay up directly over the previously installed field tile to the proper exposure and overlapping.
3. See **fig.1** for sequence of installation for fist and succeeding courses of tiles from the eave to the ridge.

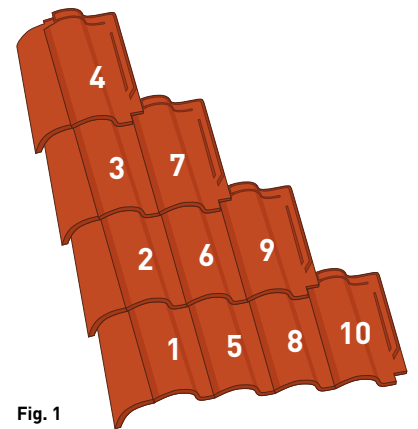


Fig. 1

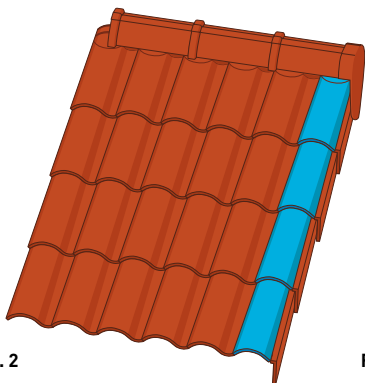


Fig. 2

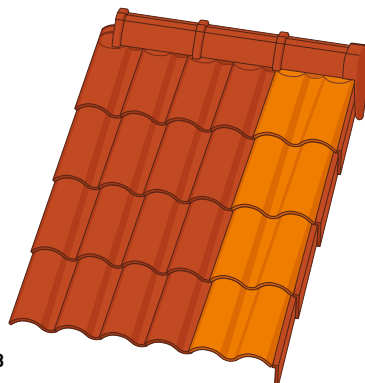
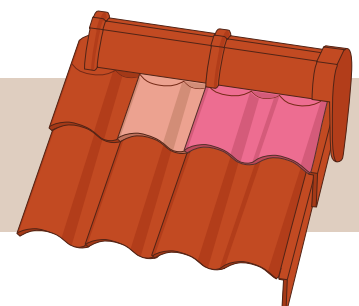


Fig. 3

4. The right section (vertical terminating end) of the roof can be finished by using either a Half (1/2) Tile (**Q17**) (**fig.2**) or a Double Tile (**Q34**) (**fig.3**).

To avoid cutting the field tiles when reaching the ridge line, a 2/3 under ridge tile (**Q36**) can be used in the upper course and closed by using a Double 2/3 under ridge tile (**Q38**).





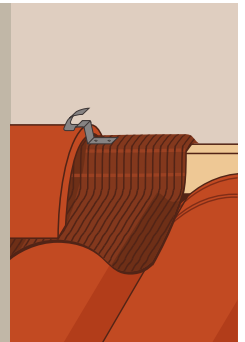


# INSTALLATION DETAILS

## 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 stain-less ring screw nails or similar.
- At the top course of the roof (horizontal terminating end) field tiles can be finished by using Wedges (Qo8).

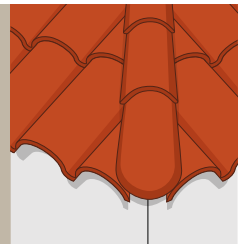
- All ridges and hips shall be covered with self adhesive Alu-Roll, La Escandella Aluminum roll for hip and ridges (CAMo1), or similar approved breathable waterproof underlayment. Underlayment should be secured over the ridge nailer with non-corrosive roofing nails.
- Apply ridge tiles with a minimum overlapping of 5 cm (2") through-out 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 mitter cut parallel to the hip line and secured.
- All ridges and hips shall be covered with self adhesive Alu-Roll, La Escandella Aluminum roll

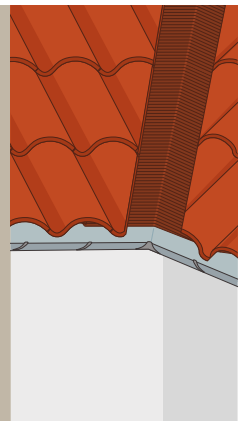
- for hip and ridges (CAMo1), or similar approved breathable waterproof underlayment.
- Air should be able to flow through the ridge and hip area. Be sure not to close these off with mortar or similar. Closing them off could result in cracks, peeling off,.. in freezing and thawing cycles.



## 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. Allu Valley Tape (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 Allu Valley Tape (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, ...



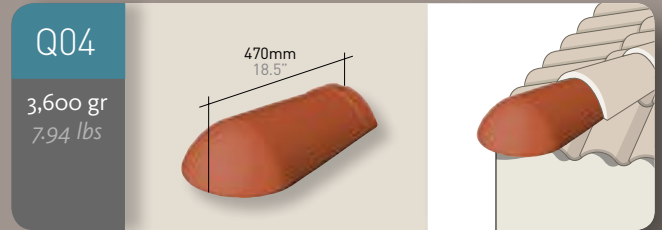
# ACCESSORIES

La Escandella offers a complete line of Large mixed "S" Roof tile accessories, available in any standard color, to customize your roof

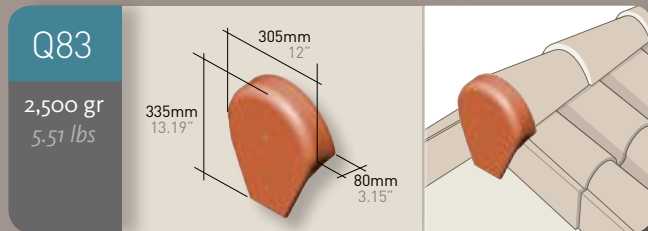
## Round ridge / Hip



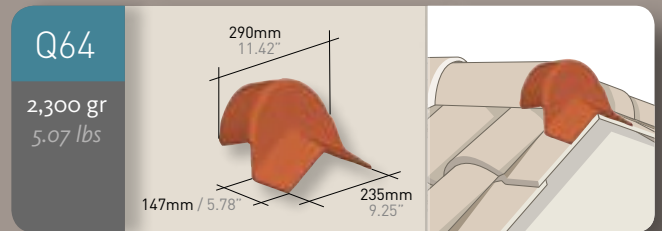
## Round ridge end / Hip starter (with Q02)



## End cap round ridge (with Q02)



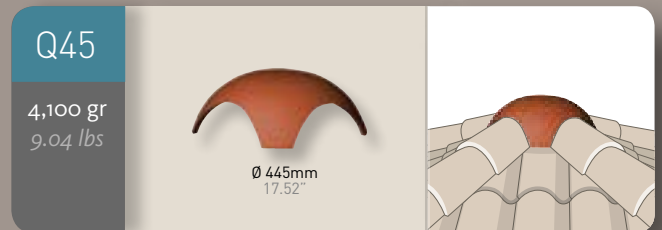
## Bardelis end cap / gable end (with Q02)



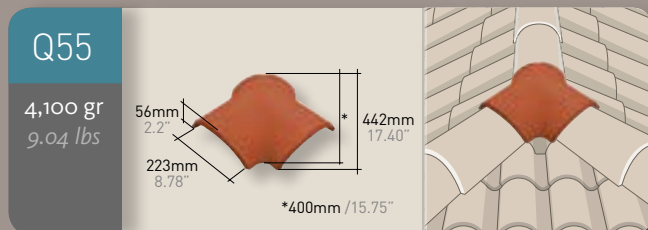
## Round 3 way ridge (with Q02)



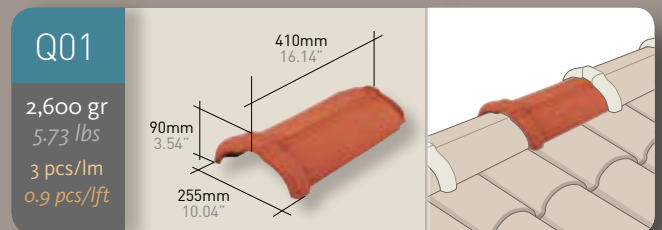
## Round 4 way ridge (with Q02)



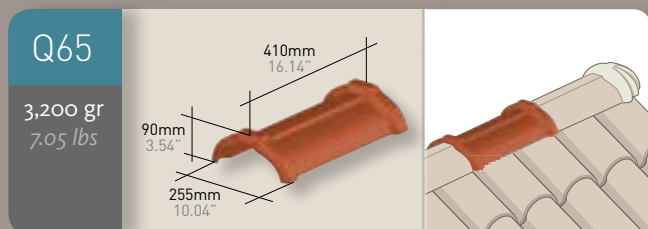
## Round 3 way ridge female (with Q02)



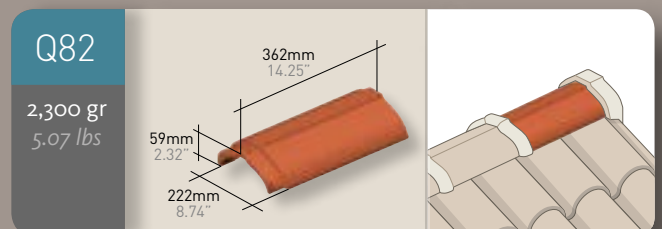
## Ridge / hip



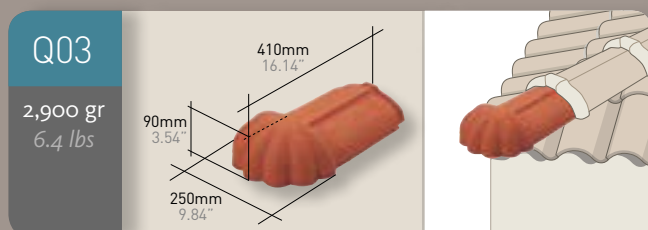
## Two way female ridge tile



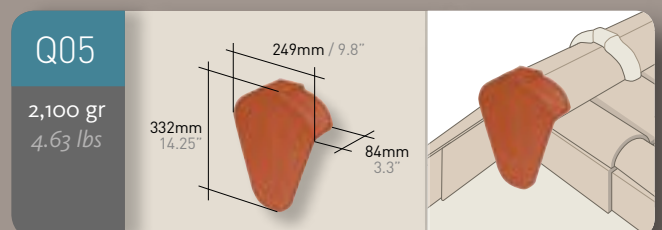
## Two way male ridge tile



## Ridge end / hip starter



## End cap / straight gable end (with Q01)



**Round end cap / gable end (with Q01)**

**Q06**  
1,700 gr  
3.75 lbs

245mm 9.64"  
245mm 9.25"

**3 Way ridge (with Q01)**

**Q07**  
4,000 gr  
8.82 lbs

450mm / 17.71"  
455mm 17.91"

**3 Way ridge with slope (with Q01)**

**Q60**  
3,700 gr  
8.16 lbs

90mm 3.54"  
204mm 8.03"  
\*420mm 16.53"  
\*375mm / 14.76"

**3 Way ridge female (with Q01)**

**Q42**  
3,700 gr  
8.16 lbs

409mm / 16.1"  
337mm 14.84"

**4 Way ridge (with Q01)**

**Q30**  
4,650 gr  
10.25 lbs

410mm / 16.14"  
410mm 16.14"

**Universal side course / rake**

**Q09**  
3,600 gr  
7.93 lbs  
2.7 pcs/lm

430mm 16.93"  
190mm 7.48"  
130mm 5.12"

**Straight left side course / rake**

**Q10**  
3,100 gr  
6.83 lbs  
2.7 pcs/lm

470mm 18.5"  
136mm 5.35"  
87mm 3.42"  
165mm 6.5"

**Straight right side course / rake**

**Q11**  
3,100 gr  
6.83 lbs  
2.7 pcs/lm

470mm 18.5"  
87mm 3.42"  
135mm 5.35"  
165mm 6.5"

**Round left side course / rake**

**Q12**  
2,600 gr  
5.73 lbs  
2.7 pcs/lm

470mm 18.5"  
130mm 5.12"  
160mm 6.3"

**Round right side course / rake**

**Q13**  
2,600 gr  
5.73 lbs  
2.7 pcs/lm

470mm 18.5"  
130mm 5.12"  
160mm 6.3"

**Bardelis left side course / rake**

**Q62**  
2,700 gr  
5.95 lbs  
2.7 pcs/lm

470mm 18.5"  
206mm 8.11"  
26mm 1.02"  
120mm 4.72"

**Bardelis right side course / rake**

**Q63**  
2,600 gr  
5.73 lbs  
2.7 pcs/lm

470mm 18.5"  
206mm 8.11"  
26mm 1.02"  
120mm 1.02"

**2/3 Small under ridge tile**

**Q36**  
 2,500 gr  
 5.5 lbs

**2/3 Double small under ridge tile**

**Q38**  
 2,600 gr  
 5.73 lbs

**Ridge / cover eave with same slope**

**Q80**  
 2,300 gr  
 5.07 lbs  
 4 pcs/lm  
 1.2 pcs/lft

**Channel / pan eave with same slope**

**Q81**  
 1,800 gr  
 3.97 lbs  
 4 pcs/lm  
 1.2 pcs/lft

**Half small Mixed "S" tile**

**Q17**  
 2,200 gr  
 4.85 lbs  
 2.7 pcs/lm

**Double small Mixed "S" tile**

**Q34**  
 5,300 gr  
 11.68 lbs  
 2.7 pcs/lm

**Small Mixed "S" ventilation tile**

**Q20**  
 3,600 gr  
 7.93 lbs

**Chimney support Small Mixed "S" tile (with Q26)**

**Q25**  
 3,900 gr  
 8.6 lbs  
 Ø 11.5 cm  
 Ø 4.53"

**Chimney support Small Mixed "S" tile (160mm / 6.3" chimney kit)**

**Q48**  
 4,200 gr  
 9.26 lbs  
 Ø 16 cm  
 Ø 6.3"

**Chimney / pipe cover (with Q25)**

**Q26**  
 2,760 gr  
 6.08 lbs  
 Ø 11.5 cm  
 Ø 4.53"

**Chimney / pipe cover (with Q48)**

**Q50**  
 3,400 gr  
 7.5 lbs  
 Ø 13/16 cm  
 Ø 5.12/6.3"

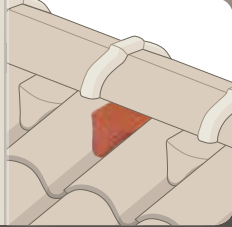
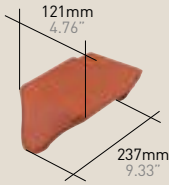
**Chimney / lantern**

**Q61**  
 4,000 gr  
 8.82 lbs  
 Ø 11.5 cm  
 Ø 4.53"

### Wedge

Q08

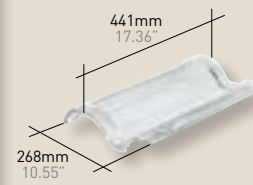
800 gr  
1.76 lbs  
4.5 pcs/lm  
1.35 pcs/ftt



### Small Mixed "S" glass tile / skylight

Q40

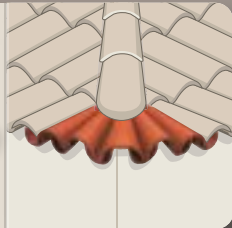
3,600 gr  
7.93 lbs  
12.5 pcs/m<sup>2</sup>



### Round corner (11 pieces)

Q43

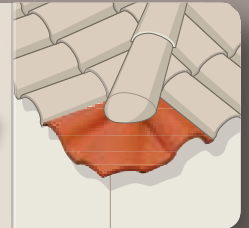
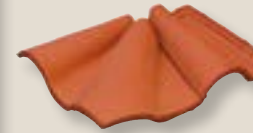
11,400 gr  
25.13 lbs



### Round corner (3 pieces)

Q51

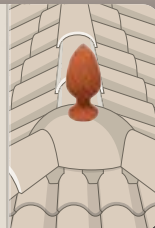
12,500 gr  
27.55 lbs



### Acorn decoration

Q57

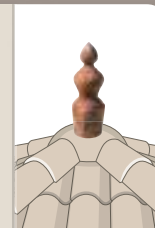
2,300 gr  
5.07 lbs



### Small Piruli

Q28

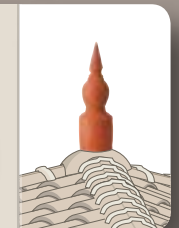
3,500 gr  
7.71 lbs



### Large Piruli

Q29

5,200 gr  
11.46 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.

	WITHOUT UNDERLAYMENT				WITH UNDERLAYMENT			
	ZONE 1	ZONE 2	ZONE 3		ZONE 1	ZONE 2	ZONE 3	
<b>Protected</b>	25% / 14°	25% / 14°	27% / 15,5°	<b>Hip</b> <b>&lt; 6,5 m</b>	23% / 13°	23% / 13°	25% / 14°	<b>Protected</b>
<b>Normal</b>	25% / 14°	27% / 15,5°	30% / 17°		23% / 13°	25% / 14°	28% / 16°	<b>Normal</b>
<b>Exposed</b>	33% / 18,5°	37% / 20,5°	40% / 22°		31% / 17,5°	35% / 19,5°	38% / 21°	<b>Exposed</b>
<b>Protected</b>	26% / 15°	28% / 16°	30% / 17°	<b>Hip</b> <b>6,5 m - 9,5 m</b>	24% / 13,5°	26% / 14,5°	30% / 17°	<b>Protected</b>
<b>Normal</b>	28% / 16°	32% / 18°	36% / 20°		26% / 14,5°	28% / 16°	32% / 18°	<b>Normal</b>
<b>Exposed</b>	35% / 19,5°	39% / 21,5°	43% / 23,5°		33% / 18,5°	37% / 20,5°	42% / 23°	<b>Exposed</b>
<b>Protected</b>	27% / 15,5°	30% / 17°	35% / 19,5°	<b>Hip</b> <b>9,5 m - 12 m</b>	25% / 14°	27% / 15,5°	32% / 18°	<b>Protected</b>
<b>Normal</b>	32% / 18°	35% / 19,5°	40% / 22°		30% / 17°	33% / 18,5°	37% / 20,5°	<b>Normal</b>
<b>Exposed</b>	42% / 23°	45% / 24,5°	50% / 26,5°		40% / 22°	43% / 23,5°	47% / 25°	<b>Exposed</b>

Note: For hips MORE than 12m long (39.4'), a waterproof underlayment on the entire roof deck **MUST** be applied and the ventilation underneath must be reinforced (check with the manufacturer).

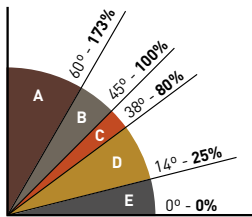
**PROTECTED LOCATIONS:** hollow area which is surrounded by hills that protect the hollow from the winds in all directions.

**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.

# FASTENING METHODS

The manner in which roof tiles 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.



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

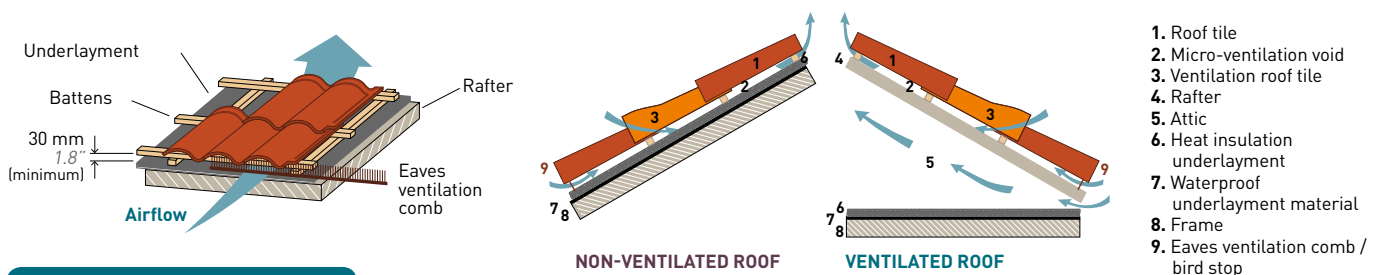
Ventilation is one of key elements to assure a good hygrothermal behavior of the roof and preservation of the roof structure. The key to a good and well preserved roof is a good ventilated roof. Proper installation of Ventilation tiles combined with ventilated roof can result in energy savings, in a 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 **Mixed ventilation tile (Q20)** for every 7 m<sup>2</sup> (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.



**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.

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.  
The slopes given in that document are those that La Escandella recommends, based on our experience and based on the French standards (DTU 40.21: NF P31-202-1 Couvertures en tuiles de terre cuite à emboîtement ou à glissement à relief) and its DTA, Document Technique d'Application- 5/15-2459, technical guide for laying shallow slopes with Small Mixed tiles).

# ROOFING COMPONENTS

La Escandella offers a wide range of non-ceramic accessories which help finish off any type of roof. From waterproofing to ventilation, fixing and batten installing, safety implementation and multiple profiles can be found here. (Ask for our full range).

**CAM01 / CAMF1**  
Alu-Roll With Micro Cut



Width: Several sizes.  
Colours: Red, paja, brown, black.

**CAM08 / CAMF8**  
Alu-Flex



Width: Several sizes.  
Colours: Red, paja, brown, black.

**CAM09 / CAMF9**  
Alu-Roll Membrane



Width: Several sizes.  
Colours: Red, brown, black.

**CAM18**  
Alu-Valley Tape



Width: 50 mm / 1.96"  
Colours: Red, brown, black.

**CAM65 / CAM21 / CAM52 / CAM53**  
Waterproof membrane



Dimensions: 1,5 m x 50 m / 1.64 yd x 54.68 yd  
Weight: several weights.

**CAM27 / CAM10**  
Ridge Tile Hooks (Q01 / Q02)



Colours: Red, brown, black.

**CAM05 / CAM010 / CAM51**  
Ridge Batten Brackets

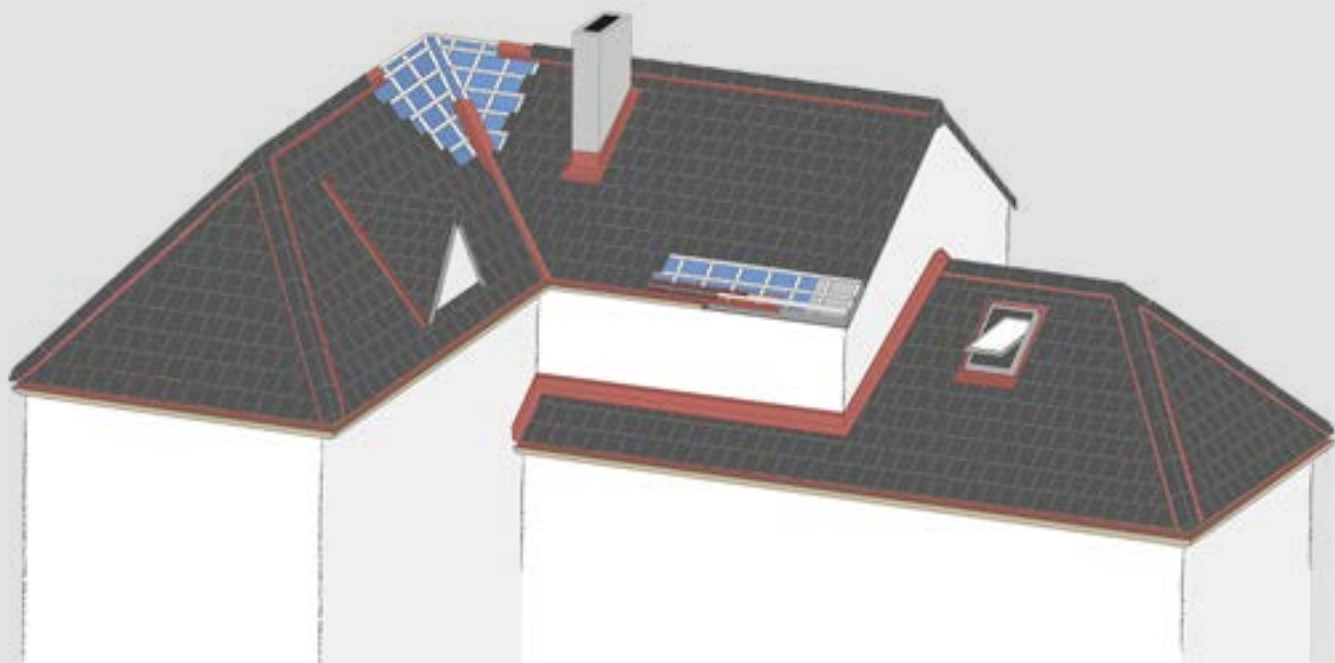


Dimensions: Several sizes.

**CAM16**  
Eaves Ventilation Comb



Dimensions: 6cm x 1m / 2.36" x 39.37"  
Colours: Red, brown, black.





# La Escandella

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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 Care Service.

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