FLAT roof tile

La Escandella

FLAT ROOF TILE

Versatility & Simplicity for today's buildings

A versatile and easy-to-fit roof tile. As there are bigger pieces, the installation and material costs are consequently reduced, enhnacing the elegance and durability of this kind of roof tile

*This low profile is also known as Alicantina or French/Marseille Tile

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

AENOR Certified Product

EN 539-2 Test of frost resistance

EN 539-1 Impermeability test

EN 538 Flexural strength test

EN 1024 Geometric characteristics

GUARANTEE 35 YEARS

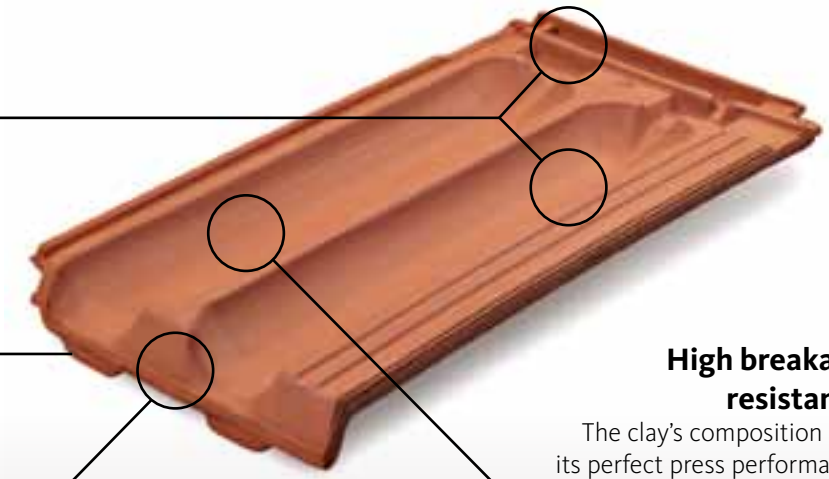
RED

JASPEE RED

Double interlocking
The double side and upper interlocking, allows the roof to be extremely watertight, ensuring its impermeability

Cost reduction
Its large format (11units/m2) and strapping every 5 units, as well as its packaging on pallets of 180 and 240 units, reduce installation costs

Easy and quick fixation
It´s traditional shape together it´s installation by crossbond, allows a great adaptation to restoration



High breakage resistance
The clay's composition and its perfect press performance make flexion rates even higher than Standard

AMBER HAZE

MEDITERANEA

BURNT OCHRE

BROWN

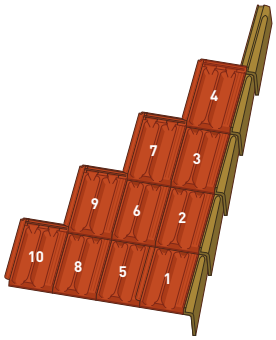
The names of the colours shown in the photos, only represent the finishes of the models identified as Flat Roof tile

LAID METHOD

This interlocking low profile tile can be laid on a continuous frame or deck, or on battens which will be fixed by building a batten counter batten deck or by fixing them directly to the frame.

La Escandella Flat roof tile tile are laid from right to left and can be installed either straight or in a half bond pattern.

All side course (rake) tiles shall be installed with fasteners typical of the field tile installations.

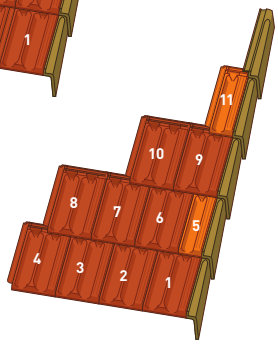


Straight Bond Pattern:

The starter course will begin with a full tile from the eave to the ridge, (allowing a 3.15" (8cm) 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.

See Figure for sequence of installation for fist and succeeding courses of tiles from the eave to the ridge.

The left section (vertical terminating end) of the roof can be closed by using a half (1/2) tile (end band) -Q18 to overlap the left side course (rake) -Q14.

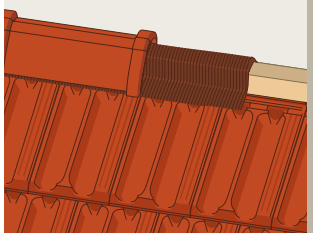


Cross Bond Pattern:

The starter course will begin with a full tile (allowing a 3.15" (8cm) 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 will be started with half (1/2) tile (end band) -Q18 and will be laid to provide the proper vertical exposure. All joints of the second course and succeeding courses should be at the center line of the previous course, alternating half tiles and full tile at the start and at the end of each course. This is continued through each successive course.

INSTALLATION DETAILS



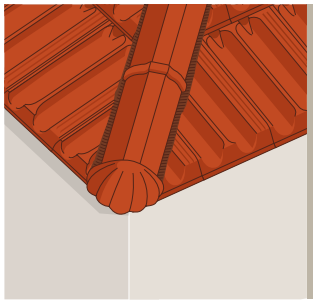
RIDGE

-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) 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.



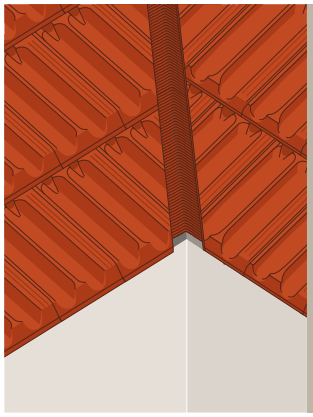
HIP

-Hip tiles must be installed in the same way as in the ridge.

-Field tiles must be 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) 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 (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 (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,...

SLOPES / PITCHES

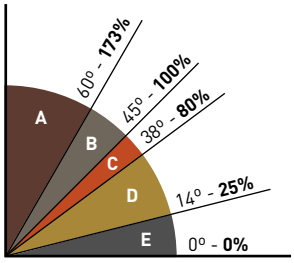
The minimum pitch standard recommendations should always be followed (see values in the referral table). On all pitches below the standard recommended minimums, or in regions where ice dams may occur, a waterproof underlayment on the entire deck MUST be applied. Most problems with water-shedding roof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

	Hip < 6,5m *< 21.32'*	Hip 6,5m - 9,5m *21.32' - 31.16'*	Hip 9,5m - 12m *31.16' - 39.37'*
PROTECTED LOCATIONS: hollow area which is surrounded by hills that protect the hollow from the winds in all directions.	40% / 22°	45% / 24,5°	50% / 26,5°
NORMAL LOCATIONS: Flat area, plateau with minimal elevation changes.	45% / 24,5°	50% / 26,5°	60% / 31°
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.	60% / 31°	70% / 35°	80% / 39°

Note: For hips greater than 12m *(39.4')* long, a waterproof underlayment on the entire roof deck MUST be applied.

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).

VENTILATION

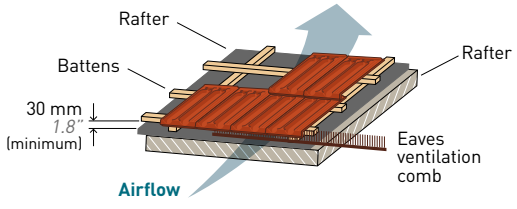
Ventilation is one of key elements to assure a good hygrothermal behavior of the roof and preservation of the roof structure. The key to a good and well preserved roof is a good ventilated roof. Proper installation of Ventilation tiles combined with ventilated roof can result in energy savings, in a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

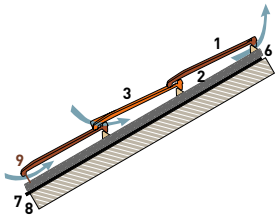
Air should be able to flow through the eave and ridge; be sure not to close these off with cement, mortar or similar. Eave and ridge areas should be protected to help minimize the access of birds and vermin infiltration.

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.

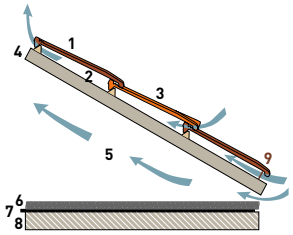
La Escandella recommends a minimum of 1 **Flat/Alicantina ventilation tile (Q21)** for every 7 m² (1.32 vent tiles per 100 sq ft.) and with a minimum of 2 ventilation tiles per roof surface, installed on the upper part of the roof.

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



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 comb / bird stop

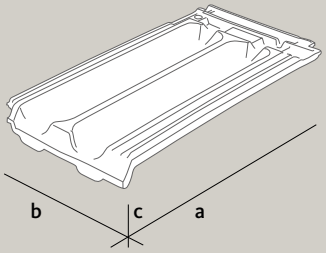
Openings at the eaves and the ridge must allow for even distribution of ventilating air below the entire roof deck.

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.

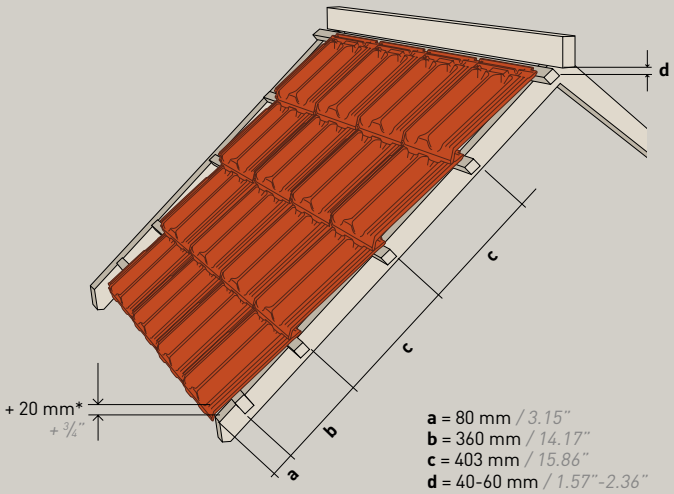
FLAT ROOF TILE

This low profile is also known as Alicantina or French tile



Dimensions*	**a:** 466 mm; **b:** 260 mm; **c:** 55 mm *a: 18.34"; b: 10.24"; c: 2.16"*
Pieces per m² - sq.	11 - *97*
Weight piece	3.700 gr */ 8.16 lbs*
Longitudinal fit**	403 mm (±5 mm) */ 15.86" (±0.2")*
Transversal fit**	226 mm (±2 mm) */ 8.9" (±0.08")*
Units per pallet	180 / 240

*The Tile dimensions indicated in this chart, allow a tolerance of approximately 2%.
**Theoretic value: this should be re-calculated on site with the tiles that are to be used.



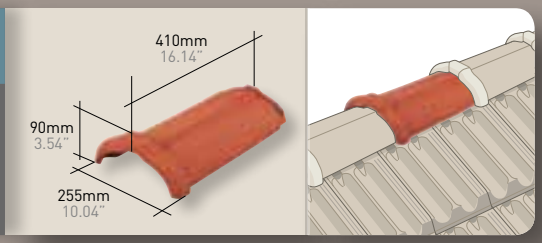
a = 80 mm */ 3.15"*
b = 360 mm */ 14.17"*
c = 403 mm */ 15.86"*
d = 40-60 mm */ 1.57"-2.36"*
(Depending on the slope)

*First course batten should be 20 mm *(¾")* higher than all succeding course battens to provide a vertical alignment and to assure a symmetrical installation

ACCESSORIES

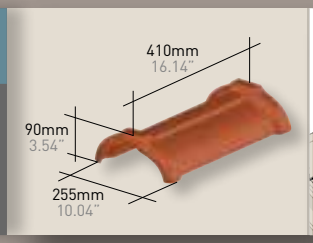
Ridge / hip

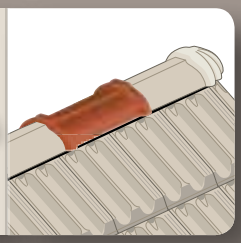
Q01
2,700 gr *5.95 lbs*
3 pcs/ml *0.9 pcs/lft*



Two way female ridge tile

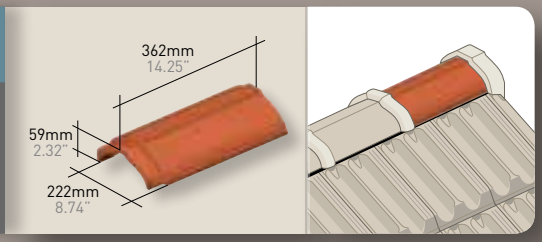
Q65
3,200 gr *7.05 lbs*





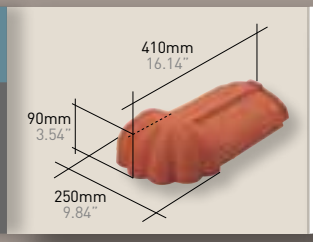
Two way male ridge tile

Q82
2,300 gr *5.07 lbs*



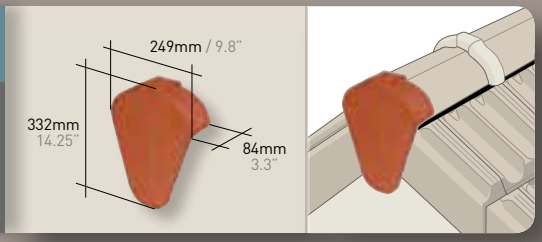
Ridge end / hip starter

Q03
3,000 gr *6.61 lbs*



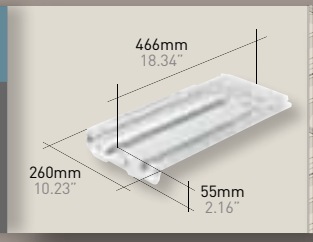
End cap / straight gable end (with Q01)

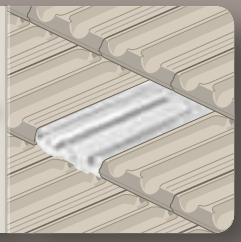
Q05
2,200 gr *4.85 lbs*



Glass roof tile / Skylight

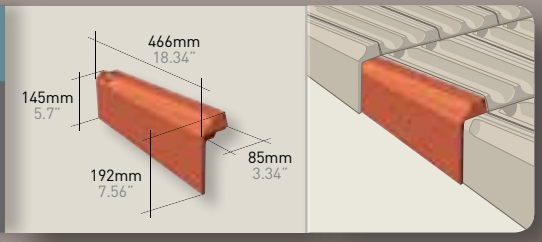
Q41
3,600 gr *7.93 lbs*





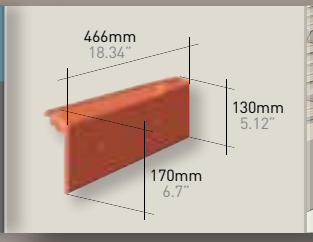
Left side course / rake

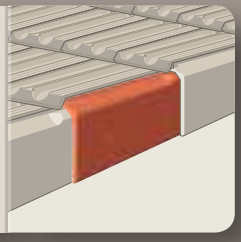
Q14
3,000 gr *6.61 lbs*
3 pcs/ml *0.9 pcs/lft*



Right side course / rake

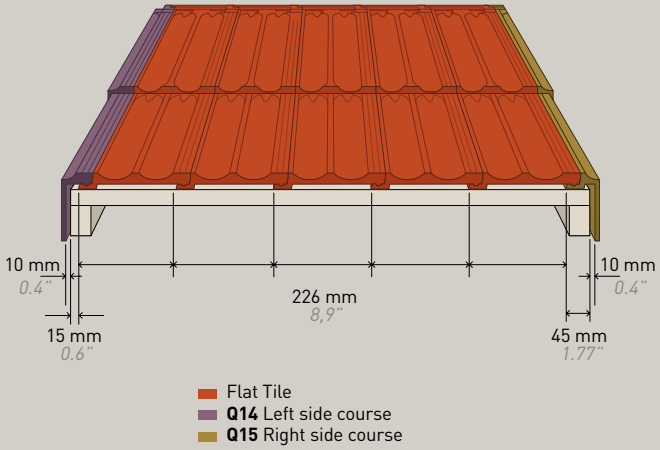
Q15
3,000 gr *6.61 lbs*
3 pcs/ml *0.9 pcs/lft*



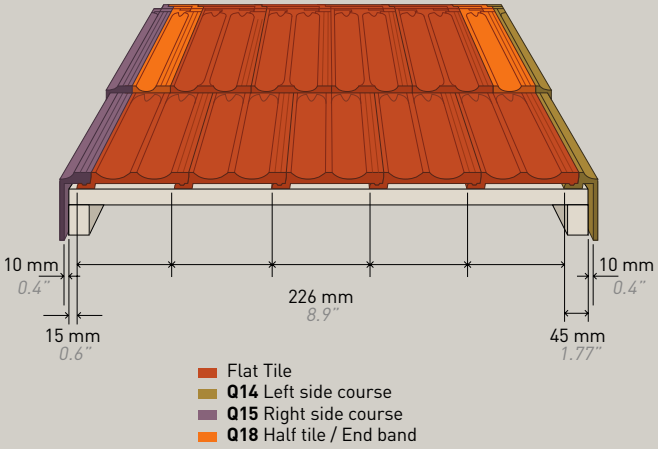


On their products, La Escandella has right to make changes in dimensions, fittings, weight & units per pallet, without previous notice. For more information, please contact your Sales Representative or our Customer Care Service.

Straight bond pattern
Continuous joints laying



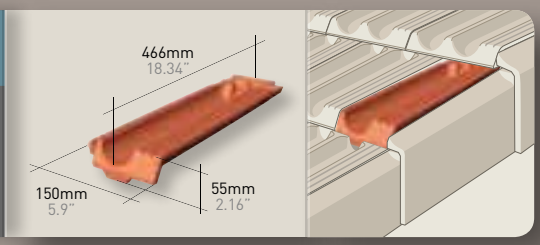
Broken bond pattern
Opposite joints laying



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

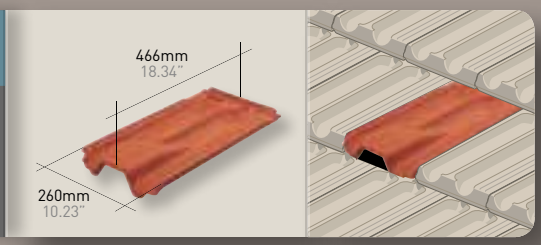
Half roof tile (End band)

Q18
2,300 gr
5.07 lbs
3 pcs/ml
0.9 pcs/lft



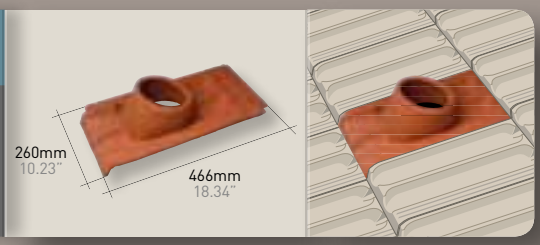
Ventilation roof tile

Q21
3,750 gr
8.26 lbs



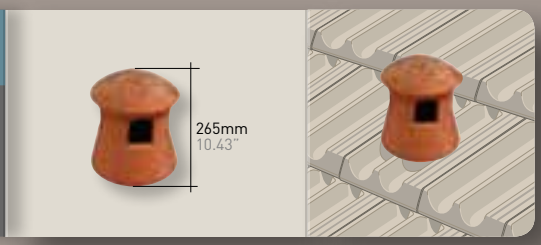
Chimney support roof tile / Pipe tile

Q46
4,300 gr
9.48 lbs
Ø 11.5 cm
Ø 4.53"



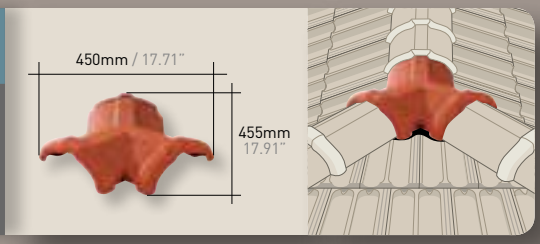
Chimney / pipe cover (with Q46)

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



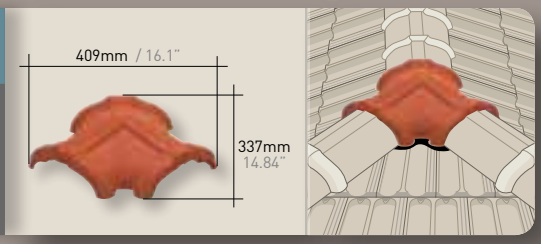
3 Way ridge (with Q01)

Q07
4,000 gr
8.82 lbs



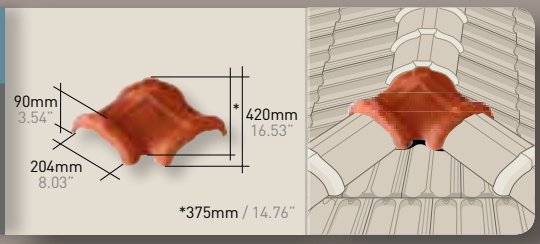
3 Way ridge female (with Q01)

Q42
3,700 gr
8.16 lbs



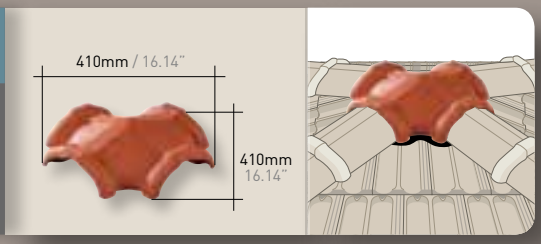
3 Way ridge with slope (with Q01)

Q60
3,700 gr
8.16 lbs



4 Way ridge (with Q01)

Q30
4,650gr
10.25 lbs



La Escandella

www.laescandella.com

Ctra. Novelda, km. 2,5 · 03698 AGOST (Alicante) SPAIN
Tel. +34 965 691 788 · Fax +34 965 691 692
e-mail: laescandella@laescandella.com

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.

This catalogue, printed in January 2014, replace the existing ones.

January 2014 - 3.000 units