# MIXED "S" SMALL









# MIXED "S" SMALL

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

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





# MIXED "S" SMALL

#### 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



vertical- allows the roof to be more watertight, ensuring its impermeability

#### 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)

#### Easy and quick fixation

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

# TECHNICAL **CHARACTERISTICS**

Flexural Strength test (EN 538)	Resistance > 1200N		
Water Impermeability (EN 539-1)	Complies with level 1		
Frost Resistance (EN 539-2)	Complies 150 cycles		
Geometric Characteristics (EN 1024)	Flatness / Straightness ≤ 1,5%		

Dimensions*	A: 441 mm; B: 263 mm; C: 73 mm		
	A: 17.36"; B: 10.35"; C: 2.87"		
Pieces /m² - P./sq.	12.5 - 116		
Weight piece	3.4 kg / 7.49 lbs		
Longitudinal fit **	370 mm (±5mm) / 14.56" (±0.19")		
Transversal fit **	203 mm (± 4mm) / 8" ( ±0.16")		
Units per pallet	210		
Weight per pallet	714 kg (1,574.1 lbs)		
Laying	Straight bond		

\*The tile dimensions indicated in this chart allow a tolerance of approximately ½2%

\*\*Theoretic value: this should be re-calculated on site with the tiles that are to be used.





















# A ROOF TILE THAT INTEGRATES IN ANY SETTING.



# COLOURS & FINISHES



#### TIP



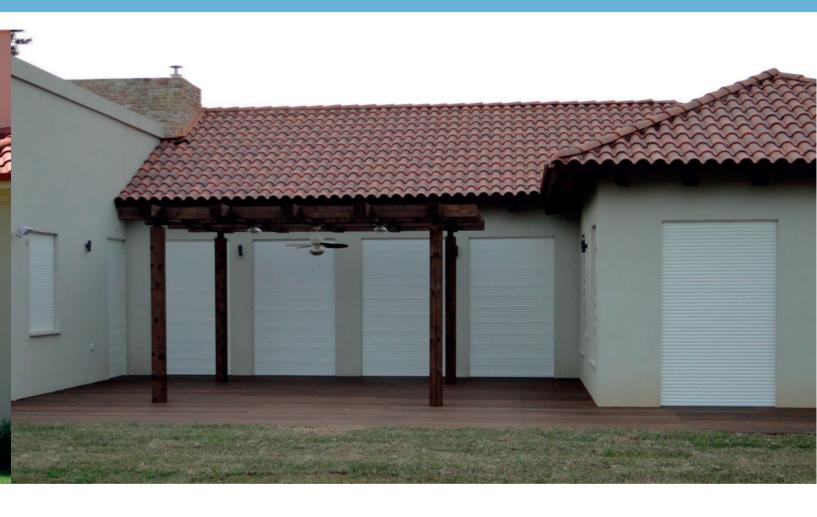
- Colour variations within one batch, affecting the whole of that batch and produced specifically for aesthetic reasons, are permissible.
- $\mbox{-}$  For tiles of one single colour, variations in color due to the ceramic process itself are accepted.
- We recommend not to stack more than 2 pallets.





**RED** 

**JASPEE RED** 













GALIA

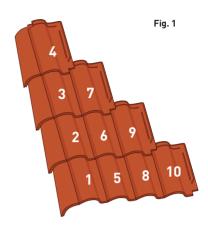
HISPANIA

**BROWN** 

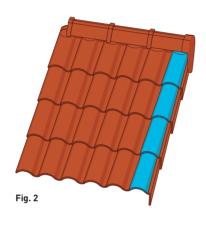
PAJA (WHITE CLAY) FLAMED PAJA (WHITE CLAY)

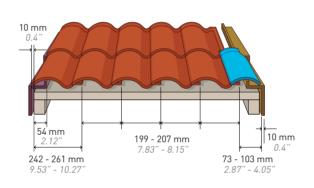
## LAID METHOD

- 1. Installation will begin with La Escandella Mixed "S" left side courses (rakes) from the eave to the ridge, allowing a  $5~\rm cm$  (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.
- **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).

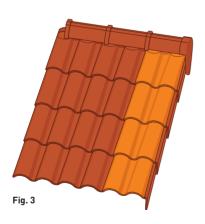


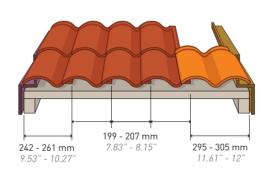
#### Half small Mixed "S" roof tile laying





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





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).



Small Mixed "S" roof tile
Q10 Straight left side course
Q11 Straight right side course

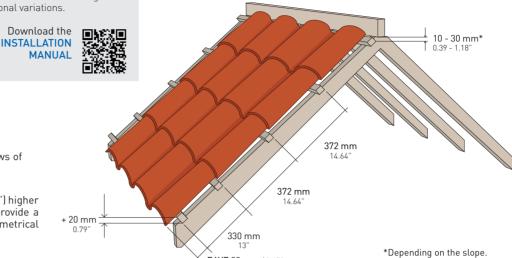
Q35 2/3 under ridge tileQ37 Double 2/3 under ridge tile

Q17 Half small Mixed "S" roof tileQ34 Double small Mixed "S" roof tile

#### 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.

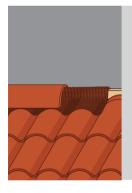
Tiles are manufactured with natural components and fired at high temperature which generates small dimensional variations.



**NOTE:** A control line between 3 and 5 rows of tiles (maximum) is recommended.

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

### INSTALLATION DETAILS

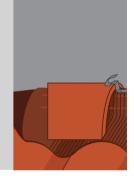


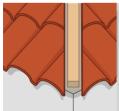
#### **RIDGE**

- -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 either Wedges (Q08) or under ridge tiles (Q70 and Q35).
- -All ridges and hips shall be covered with self adhesive Alu-Roll (CAM01, CAMF1, CAM09, CAMF9) or similar approved breathable waterproof underlayment. Underlayment should be secured over the ridge nailer with non-corrosive roofing nails.

**EAVE** 80 mm / 3.15"

-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 (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. 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 underlay-ment, which should be covered by the ridge tile. Valley should

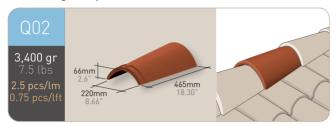
- be extended along the eaves to overhang the fascia board by 5cm (2") or over the gutter.
- -Tiles should be laid parallel to the valley line, at same relative angle and should overhang the valley battens by at least 10 cm [4"]
- -Tiles at each side of the valley crease should be laid to provide a minimum 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 instal-lation is required to ensure water tightness in order to avoid cracks, peeling off, ...



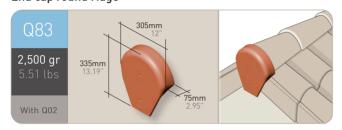
## **ACCESSORIES**

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



#### End cap round ridge



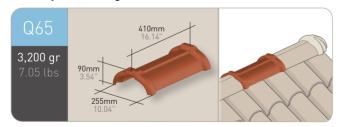
#### Round 3 way ridge



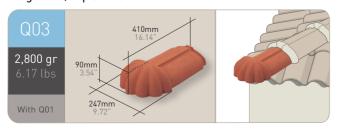
#### Round 3 way ridge female



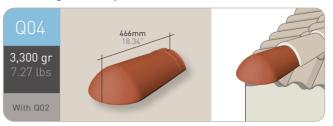
#### Two way female ridge tile



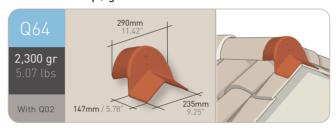
#### Ridge end / hip starter



#### Round ridge end / Hip starter



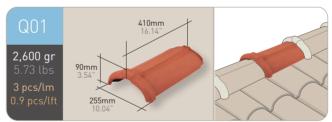
#### Bardelis end cap / gable end



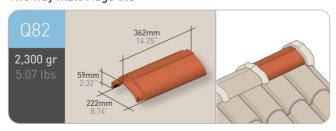
#### Round 4 way ridge



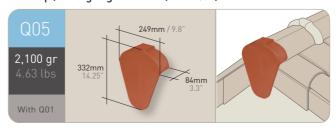
#### Ridge / hip



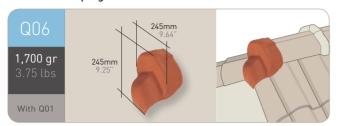
#### Two way male ridge tile



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



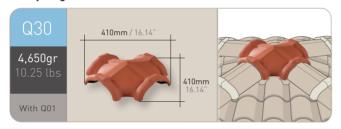
#### Round end cap / gable end



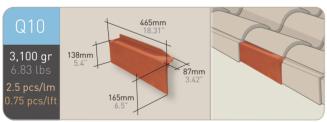
#### 3 Way ridge with slope



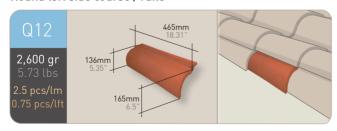
#### 4 Way ridge



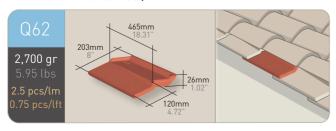
#### Straight left side course / rake



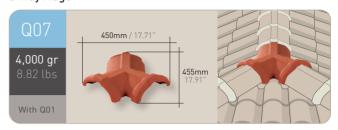
#### Round left side course / rake



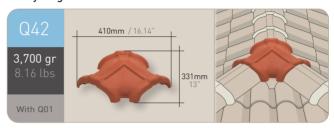
#### Bardelis left side course / rake



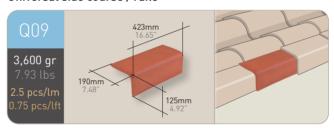
#### 3 Way ridge



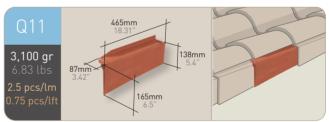
#### 3 Way ridge female



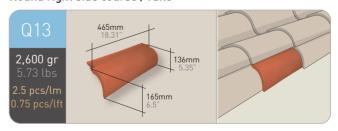
#### Universal side course / rake



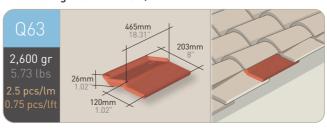
#### Straight right side course / rake



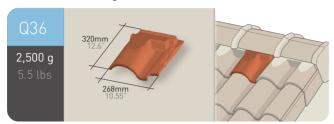
#### Round right side course / rake



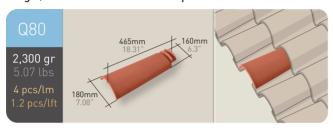
#### Bardelis right side course / rake



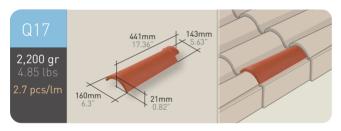
#### 2/3 Small under ridge tile



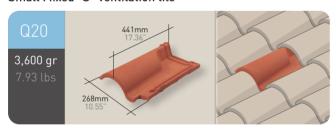
#### Ridge / cover eave with same slope



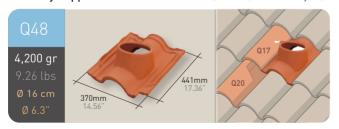
#### Half small Mixed "S" tile



#### Small Mixed "S" ventilation tile



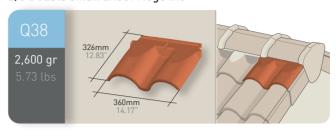
#### Chimney support Small Mixed "S" tile (160mm / 6.3" chimney kit)



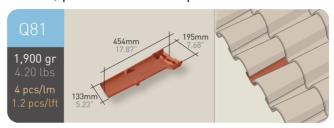
#### Chimney / pipe cover



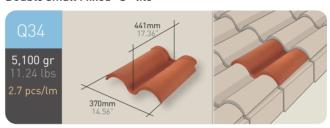
#### 2/3 Double small under ridge tile



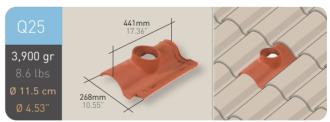
#### Channel / pan eave with same slope



#### Double small Mixed "S" tile



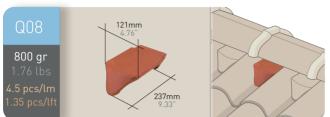
#### Chimney support Small Mixed "S" tile



#### Chimney / pipe cover



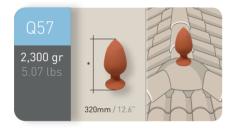
Wedge



Round corner (11 pieces)



Acorn decoration



Small Piruli



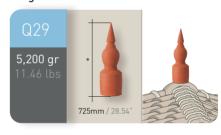
Small Mixed "S" glass tile / skylight



Round corner (3 pieces)



Large Piruli





# ROOF ACCESSORIES FOR VENTILATED ROOFS

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

CAM01 / CAMF1 Alu-Roll With Micro Cut





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

#### CAM08 / CAMF8 Alu-Flex



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

#### CAM65 / CAM21 / CAM52 / CAM53 Waterproof membrane



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

#### CAM27NEW / CAM07 Ridge Tile Hook





Colours: Red, brown, black.

#### CAM05 / CAM010 / CAM51 Ridge Batten Bracket





Dimensions: Several sizes.

CAM16 Eaves Ventilation Comb





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



Universal clip for roof tiles with lace



CAM62 Eave hook/clip for wooden batten





### 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.

	WITHOUT UNDERLAYMENT				WITH UNDERLAYMENT			
	ZONE 1	ZONE 2	ZONE 3		ZONE 1	ZONE 2	ZONE 3	
Protected Normal Exposed	25% / 14° 25% / 14° 33% / 18,5°	27% / 15,5° 27% / 15,5° 37% / 20,5°	30% / 17° 30% / 17° 40% / 22°	Hip < 6,5 m	19% / 10° 21% / 11° 28% / 15°	21% / 11° 23% / 12° 32% / 17°	23% / 12° 26% / 14° 34% / 18,8°	Protected Normal Exposed
Protected Normal Exposed	28% / 16° 28% / 16° 35% / 19,5°	32% / 18° 32% / 18° 39% / 21,5°	36% / 20° 36% / 20° 43% / 23,5°	Hip 6,5 m - 9,5 m	22% / 12° 24% / 13° 30% / 17°	24% / 13° 27% / 15° 33% / 18°	26% / 14° 31% / 17,5° 37% / 20,5°	Protected Normal Exposed
Protected Normal Exposed	32% / 18° 32% / 18° 42% / 23°	35% / 19,5° 35% / 19,5° 45% / 24,5°	40% / 22° 40% / 22° 50% / 26,5°	Hip 9,5 m - 12 m	23% / 12° 27% / 15° 36% / 19°	26% / 14° 30% / 17° 39% / 21°	30% / 17° 34% / 18,8° 43% / 23,5°	Protected Normal Exposed

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

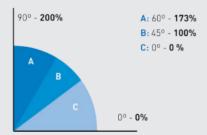
NORMAL LOCATIONS:: Flat area, plateau with minimal elevation changes.

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,

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).

#### **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: Every roof tile should be securely fastened by nailed, screwed, clipped...
- B: Roof tiles will be fixed at least once every two or three, depending on the exposure of the roof and the height of the building.
- C: The roof tiles shall be fixed at least in the proportion of one in five from a horizontal line, initiating fixation by rows alternately and regularly on the battens.

In case of high wind exposure, all roof tiles must be fixed.

#### VENTILATION

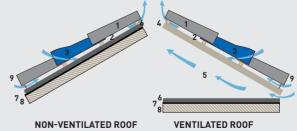
Ventilation is one of key elements to assure a good hygrothermal behavior of the roof and preservation of the roof structure. The key to a good and well preserved roof is a good ventilated roof. Proper installation of Ventilation tiles combined with ventilated roof can result in energy savings, in a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



- 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
- 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





www.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 Service.