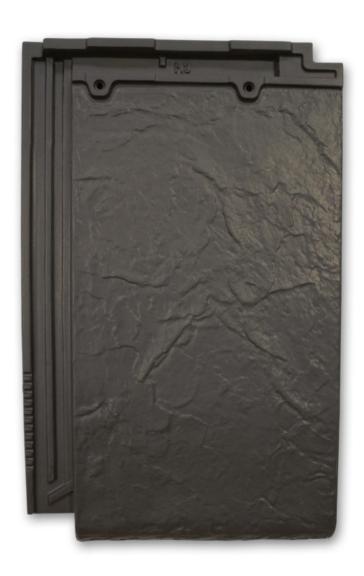
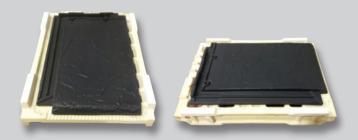
# PLANUM











Single H fire supports that allow the tiles to be fired individually at high temperatures, obtaining perfect definition.



PERFECTION IS TO REACH THE TOP. La Escandella stands once again by the latest technology, heavily investing in a new production line designed to optimize the finish of its products and creating a Premium product range. Discover the new H-Selection line, made for excellence.

H-Selection is the result of applying modern manufacturing processes in H-Cassette to a selection of our products, endowing them with numerous functional and aesthetic advantages and benefits.



### **Excellent** flatness

Individual curing of each tile thanks to support in H. Excellent flatness with no contact points.



### High definition on each piece

It provides a perfect definition on each piece, made with gypsum moulds, providing a much finer texture.



### Low absorption

Higher resistance to ice and mould formation.



### Lifetime warranty

Our 100 years of warranty ensure your peace of mind and demonstrate the quality of our manufacturing process.

# PLANUM



### 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: 444mm; B: 280mm; C: 32mm
	A: 17.48"; B: 11.02"; C: 1.26"
Pieces /m² - P./sq.	11 - 101
Weight piece	3.5 kg / 7.71 lbs
Longitudinal fit **	370 mm (+6 mm; - 44 mm) / 14.57" (+0.24"; -1,73")
Transversal fit **	237 mm / 9.22"
Units per pallet	240 / 320
Weight per pallet	840 kg (1,851.94 lbs) / 1120 kg (2,469.2 lbs)
Laying	Broken bond



















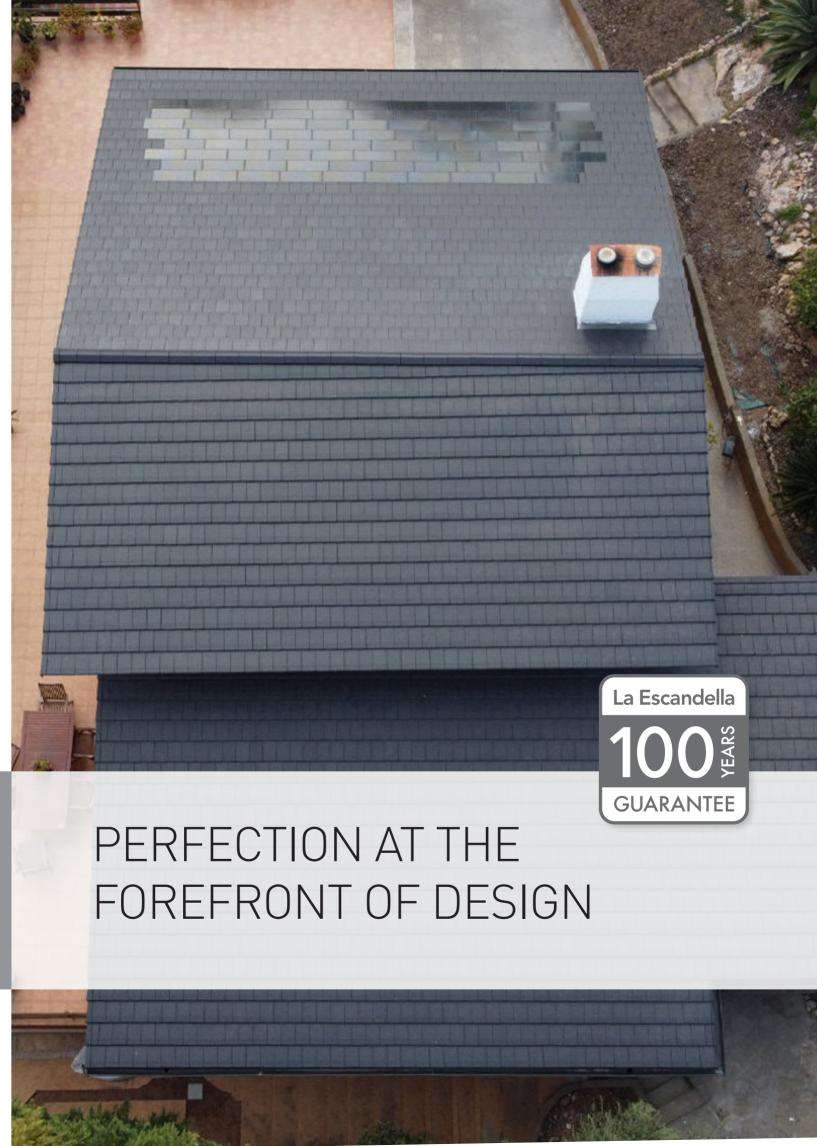








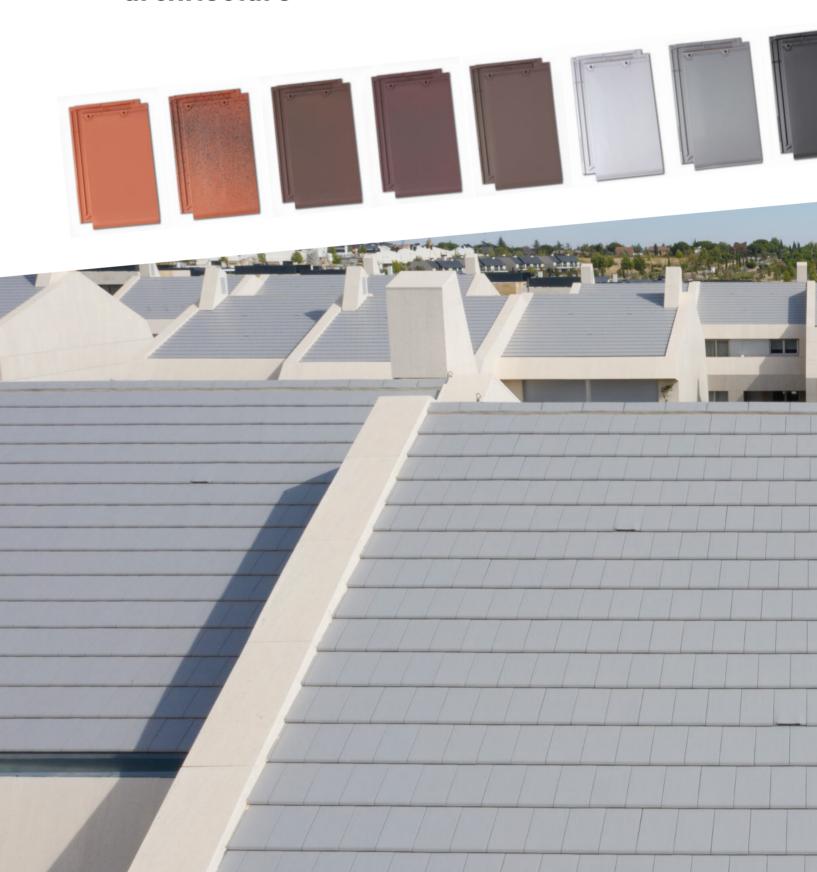








# Design & colour variety for modern and vanguard architecture





### TECHNICAL ADVANTAGES



# LOWER ABSORPTION AND HIGHER FROST RESISTANCE

- · Water absorption on Klinker H-Cassette tiles is lower than 5%.
- · Higher resistance to ice and mildew.

# 2 interlocking

- · 50mm interlocking > Large drainage rib.
- · Bigger watertightness.

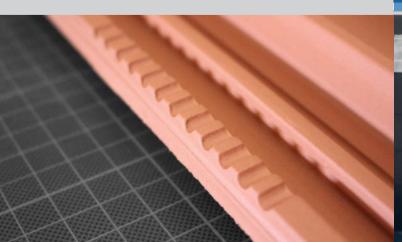


# 3 NAIL HOLE

- · Pre-hole (easy to be nailed)
- · Less tile breakages when nailing.

## 4 HOOK ATTACHMENT

- · Sawtooth.
- · Easy hook fixing; one hook allows to fix 3 roof tiles at same time

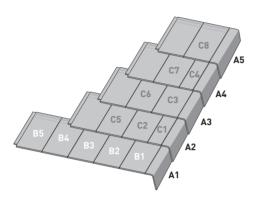




### LAID METHOD

Planum roof tile can be laid on a continuous frame, which has to be completely flat in order to ensure the right laying of tiles and their fixing components (to avoid water-leaking); or on a discontinuous frame or battens (CAM068, CAM042, CAM043, CAM044), which will be fixed by building a batten counter batten deck or by fixing them directly to the frame.

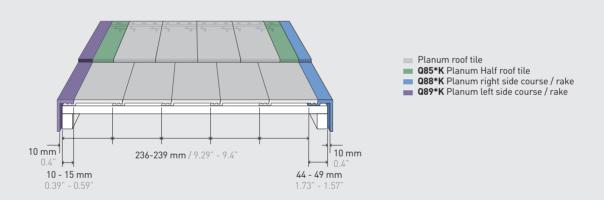
The laying of Planum roof tile is carried out by broken bond (also re-ferred as cross bond) as follows:



- 1. The starter course will begin with the Planum right side course (Rake trim Q88\*K) from the eave to the ridge (Q02\*K, Q90\*K, Q110\*K, Q120\*K, Q145\*K).
- 2. The starter course will begin with a full tile (B1). The tiles structuring the eave will have to overlap the side course and fit together one to another. The second course will be started with half tile (Q85\*K) (C1) and will be laid to provide the proper vertical exposure. This exposure is continued through each successive course.
- **3.** All joints of the second course and succeeding courses should be at the center line of the previous course, alternating half tiles (Q85K) and full tile at the start and at the end of each course (Q89\*K).



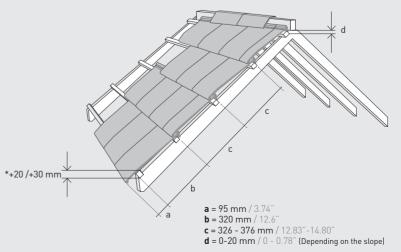




#### \*First course batten of Planum roof tile:

The total distance between the first eave batten and the second batten (distance b) should be 320mm. The difference in the height of the batten will depend on the width of the crawler:

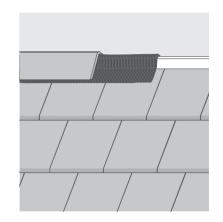
- If the eave batten are 30mm wide or less, the eaves must be  $\pm$ 30mm high.
- If the batten is wider than 30mm with +20mm height is sufficient. Same as other mechanical tiles.





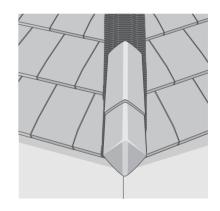
#### **RIDGE**

- -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 (CAM01, CAMF1, CAM09, CAMF9) or similar approved breathable waterproof un-derlayment. 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.



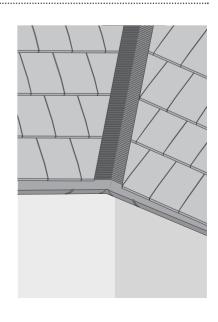
#### HIP

- -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 (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  $10 \text{ cm} (4^n)$ .
- -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**

#### Q02\*K | Round ridge / Hip klinker



#### Q90\*K | Atica ridge 120° klinker



#### Q110\*K | Atica collar ridge klinker



#### Q120\*K | Angular ridge klinker



#### Q145\*K | Ridge 45°





2.5 u./lm



3,850 gr / 8.49 lbs 2.5 u./lm As wedge must be used **Q120\*K** 

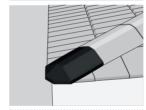
**3,400 gr**/ 7.49 lbs 2.5 u./lm

3,400 gr/ 7.49 lbs 2.5 u./lm

3,500 gr / 7.71 lbs 2.5 u./lm

Q122\*K | Angular hip / end ridge klinker





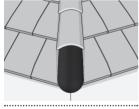
**3,300** gr / 7.27 lbs

Q04\*K | Round ridge end / Hip starter klinker





Q109\*K | Atica 120° hip /

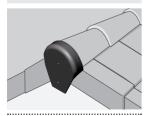


**3,300** gr / 7.93 lbs

**2,900** gr / 6.39 lbs

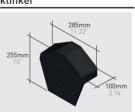
Q83\*K | End cap round <u>ridge kli</u>nker

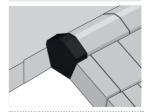




2,500 gr / 5.51 lbs

Q124\*K | Angular end cap klinker

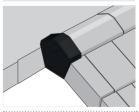




**2,180** gr / 4.8 lbs

Q147\*K | End cap 45°

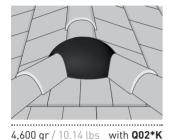




**2,700** gr / 5.95 lbs

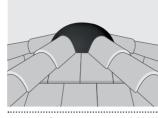
**Q44\*K** | Round 3 way ridge klinker





**Q45\*K** | Round 4 way ridge klinker





4,100 gr / 9.04 lbs with **Q02\*K** 

Q55\*K | Round 3 way ridge female klinker

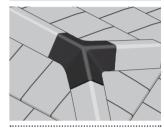




**4,100** gr / 9.04 lbs with **Q02\*K** 

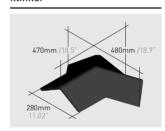
Q146\*K | 45° 3 way ridge klinker

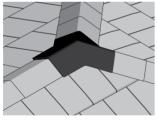




5.000 gr / 11 lbs with **Q145\*K** 

Q111\*K | Atica 120° 3 way ridge klinker

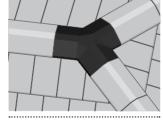




**5,100** gr / 11.24 lbs with **Q120\*K** and **Q110\*K** 

Q123\*K | Angular 3 way ridge klinker

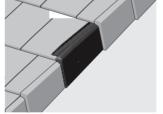




**3,720** gr / 8.2 lbs with **Q120\*K** 

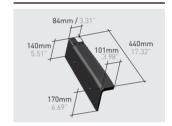
**Q88\*K** | Planum right side course / Rake klinker





**2,500** gr / 5.3 lbs **2.7** u./lm

**Q89\*K** | Planum left side course / Rake klinker

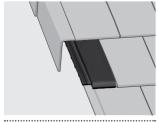




2,800 gr / 6. lbs 2.7 u./lm

**Q85\*K** | Planum half roof tile klinker





**2,200 gr** / 6.39 lb

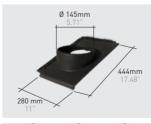
**Q86\*K** | Planum ventilation roof tile klinker





**3,500 gr** / 4.85 lbs

### Q87\*K | Planum chimney roof tile klinker





**4,000** gr / 8.6 lbs

### **Q77\*K** | Planum chimney klinker





**3,100** gr / 6.83 lbs

with **Q87\*K** 

### **ROOFING COMPONENTS**

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 / CAM10 / CAM123 Ridge Tile Hook





Colours: Red, brown, black.

CAM05 / CAM010 / CAM51 Ridge Batten Bracket





Dimensions: Several sizes.

CAM14 Eaves Ventilation Comb





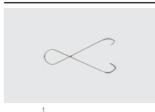
Dimensions: 6cm x 1m / 2.36" x 39.37" Colours: Red, black.



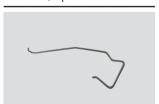
Metal clip clipped with a bumper



**CAM26**Universal clip for roof tiles with lace

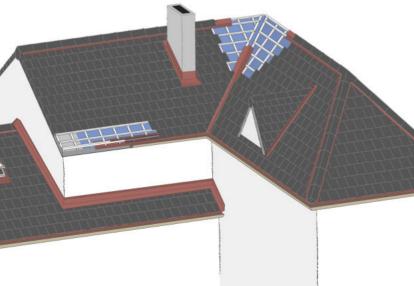


CAM59
Metal hook/clip for wood batten



CAM62
Eave hook/clip for roof tiles with lace





### 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				WIT	H UNDERLAY	MENT	
	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..

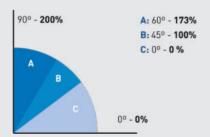
NORMAL LOCATIONS:: Flat area, plateau with minimal elevation changes.

**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

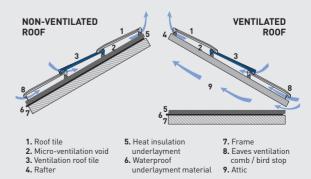
Ventilation is one of key elements to assure a good hygrothermal behavior of the roof and preservation of the roof structure. The key to a good and well preserved roof is a good ventilated roof. Proper installation of Ventilation tiles combined with ventilated roof can result in energy savings, in a 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 ventilation tile [Q86\*K] for every 7 m $^2$  (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.







#### 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.