PLANUM

La Escandella
ROOFING THE WORLD
CERAMIC ROOF SOLUTIONS

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.
Higher resistance
The clay composition together with the perfect pressing allows flexion higher than the required while only weighing 3.5 kg.

High definition on each piece
The gypsum moulds provide a perfect finish, obtaining a smoother texture, no contact points nor creases.

Lower absorption (<5%)
High quality clay together with high firing temperature mean higher resistance to ice and mildew.

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

Excellent flatness
H-Cassette manufacturing provides a perfect finish to each product.

Cost reduction
Its large format (11 units/m²) and strapping every 5 units, as well as its packaging on pallets of 240 and 320 units, reduce installation costs.

TECHNICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Flexural Strength test (EN 538)</th>
<th>Resistance &gt; 1200N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Impermeability (EN 539-1)</td>
<td>Complies with level 1</td>
</tr>
<tr>
<td>Frost Resistance (EN 539-2)</td>
<td>Complies 150 cycles</td>
</tr>
<tr>
<td>Geometric Characteristics (EN 1024)</td>
<td>Flatness / Straightness ≤ 1.5%</td>
</tr>
</tbody>
</table>

- **Dimensions**
  - L: 444mm; W: 280mm; H: 32mm
  - L: 17.48"; W: 11.02"; H: 1.26"
- **Pieces /m²/sq.**
  - 11 / 101
- **Weight piece**
  - 3.5 kg / 7.71 lbs
- **Longitudinal fit**
  - 370 mm (± 6 mm) / 14.57" (±0.23")
- **Transversal fit**
  - 237 mm (±2 mm/-1 mm) / 9.33" (+0.08"; -0.04")
- **Units per pallet**
  - 240 / 320
- **Laying**
  - Broken bond

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*The tile dimensions indicated in this chart allow a tolerance of approximately 1.2%.
**Theoretical value: this should be re-calculated on site with the tiles that are to be used.*
PERFECTION AT THE FOREFRONT OF DESIGN
FINISHES

- TIRK: RED KLINKER
- TIXK: GREY KLINKER
- TIRRK: RUSTIC RED KLINKER
- TIPK: SLATE KLINKER
- TIYK: GALAXY KLINKER
Inspiring Colours

- **TIBUK**: Burgundy Klinker
- **TIJK**: Jaspee Red Klinker
- **TICEK**: Pepper Klinker
- **TIBSK**: Blackstone Klinker
- **TIMK**: Brown Klinker
Design & colour variety for modern and vanguard architecture
1. 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
   - 45mm 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
BEAUTY & DESIGN
ALL IN ONE
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 referred as cross bond) as follows:

A. 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).

B. 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.

C. 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. 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.
First course batten should be 30mm (1.18") higher than all succeeding course batters to provide a vertical alignment and to assure a symmetrical installation.

- Planum roof tile
- Q85*K Planum Half roof tile
- Q88*K Planum right side course / rake
- Q89*K Planum left side course / rake

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>95 mm / 3.74&quot;</td>
<td>320 mm / 12.6&quot;</td>
<td>364 - 376 mm / 14.33&quot; - 14.8&quot;</td>
<td>0 - 20 mm / 0 - 0.78&quot; (depending on the slope)</td>
</tr>
</tbody>
</table>
INSTALLATION DETAILS

RIDGE

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

HIP

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

VALLEY

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

Q02*K | Round ridge / Hip klinker

3,600 gr / 7.93 lbs  2.5 u./lml

Q04*K | Round ridge end / Hip starter klinker

3,600 gr / 7.93 lbs  with Q02*K

Q03*K | End cap round ridge klinker

2,600 gr / 5.73 lbs  with Q02*K

Q09*K | Pyramid ridge-side course / Rake klinker

*120mm / 4.72”

190mm 7.48”

Q109*K | Atica 120º hip / end ridge klinker

3,600 gr / 7.93 lbs  2.5 u./lml

Q120*K | Angular ridge klinker

3,600 gr / 7.93 lbs  2.5 u./lml

Q01*K | Pyramid ridge-side course / Rake klinker

3,600 gr / 7.93 lbs  2.5 u./lml

Q109*K | Atica 120º hip / end ridge klinker

3,600 gr / 7.93 lbs  with Q02*K

Q120*K | Angular hip / end ridge klinker

3,600 gr / 7.93 lbs  with Q120K

Q083*K | Pyramid end cap klinker

3,600 gr / 7.93 lbs  with Q02*K

Q092*K | Pyramid end cap klinker

3,600 gr / 7.93 lbs  with Q02*K

Q108*K | Atica collar ridge klinker

3,600 gr / 7.93 lbs  2.5 u./lml

Q124*K | Angular end cap klinker

3,600 gr / 7.93 lbs  2.5 u./lml

Q093*K | Pyramid end cap klinker

3,500 gr / 7.71 lbs  with Q01*K

Q109*K | Atica 120º hip / end ridge klinker

3,600 gr / 7.93 lbs  with Q02*K

Q120*K | Angular hip / end ridge klinker

3,600 gr / 7.93 lbs  with Q120K

Q083*K | End cap round ridge klinker

2,600 gr / 5.73 lbs  with Q02*K

Q092*K | Pyramid end cap klinker

2,900 gr / 6.39 lbs  with Q01*K

Q110*K | Atica collar ridge klinker

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

Q124*K | Angular end cap klinker

2,160 gr / 4.8 lbs  with Q120*K
<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Weight</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q44*K</td>
<td>Round 3 way ridge klinker</td>
<td>4,600 gr / 10.14 lbs</td>
<td>Ø 440 mm / 17.32”</td>
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<td></td>
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<td>Ø 445 mm / 17.32”</td>
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<td>Q45*K</td>
<td>Round 4 way ridge klinker</td>
<td>4,100 gr / 9.04 lbs</td>
<td>Ø 440 mm / 17.32”</td>
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<td></td>
<td></td>
<td>Ø 445 mm / 17.32”</td>
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<tr>
<td>Q02*K</td>
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<tr>
<td>Q011*K</td>
<td>Atica 120° 3 way ridge klinker</td>
<td>3,720 gr / 8.2 lbs</td>
<td>470mm / 18.5”</td>
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<td></td>
<td>485mm / 19.1”</td>
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<td>280mm / 11.0”</td>
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<td>Q123*K</td>
<td>Angular 3 way ridge klinker</td>
<td>3,720 gr / 8.2 lbs</td>
<td>460mm / 18.1”</td>
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<td>405mm / 16.0”</td>
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<td>* 90mm / 3.54”</td>
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<td>Q120*K</td>
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<tr>
<td>Q88*K</td>
<td>Planum right side course / Rake klinker</td>
<td>2,800 gr / 6.17 lbs</td>
<td>450mm / 17.7”</td>
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<td>133mm / 5.27”</td>
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<td>Q89*K</td>
<td>Planum left side course / Rake klinker</td>
<td>2,900 gr / 6.39 lbs</td>
<td>460mm / 18.1”</td>
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<td>405mm / 15.95”</td>
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<td>240mm / 9.45”</td>
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<td>* 90mm / 3.54”</td>
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<tr>
<td>Q85*K</td>
<td>Planum half roof tile klinker</td>
<td>2,200 gr / 6.39 lb</td>
<td>450mm / 17.7”</td>
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<td>160mm / 6.3”</td>
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<tr>
<td>Q86*K</td>
<td>Planum ventilation roof tile klinker</td>
<td>3,500 gr / 4.85 lbs</td>
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<td>120mm / 4.72”</td>
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<tr>
<td>Q87*K</td>
<td>Planum chimney klinker</td>
<td>4,000 gr / 8.82 lbs</td>
<td>450mm / 17.7”</td>
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<td>90mm / 3.54”</td>
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<td>Q94*K</td>
<td>Pyramid triple ridge klinker</td>
<td>5,400 gr / 11.9 lbs</td>
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<td>474mm / 18.6”</td>
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<td>443mm / 17.4”</td>
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<td>202mm / 7.95”</td>
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<tr>
<td>Q111*K</td>
<td>Atica 120° 3 way ridge klinker</td>
<td>3,720 gr / 8.2 lbs</td>
<td>470mm / 18.5”</td>
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<td>280mm / 11.0”</td>
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<tr>
<td>Q120*K</td>
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<tr>
<td>Q55*K</td>
<td>Round 3 way ridge female klinker</td>
<td>4,100 gr / 9.04 lbs</td>
<td>Ø 400 mm / 15.75”</td>
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<td></td>
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<td>Ø 445 mm / 17.40”</td>
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<td></td>
<td>223mm / 8.78”</td>
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<td>56mm / 2.2”</td>
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<td>Q91*K</td>
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<tr>
<td>Q86*K</td>
<td>Planum ventilation roof tile klinker</td>
<td>3,500 gr / 4.85 lbs</td>
<td>450mm / 17.7”</td>
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<td>128mm / 5.04”</td>
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<tr>
<td>Q88*K</td>
<td>Planum left side course / Rake klinker</td>
<td>2,900 gr / 6.39 lbs</td>
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<td>90mm / 3.54”</td>
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</table>
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 wider range in last Price List).

**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, 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.

**CAM27 / CAM70 / CAM07 / CAM10**
*Ridge Tile Hook*

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

**CAM05 / CAM010 / CAM51**
*Ridge Batten Bracket*

Dimensions: Several sizes.

**CAM14 / CAM58**
*Eaves Ventilation Comb*

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

**CAM64**
*Metal clip clipped with a bumper*

**CAM59**
*Metal clip for wood battens*

**CAM26**
*Universal Metal-clip*
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.

### TECHNICAL INFORMATION

#### SLOPES / PITCHES

In order to ensure good roof performance, the recommended minimum pitch, determined on the basis of the length of the hip and the climatic conditions of the site, see values in the referral table. For all pitches below the standard recommended minimums, it shall be used a waterproof membrane to ensure the watertight of the roof.

<table>
<thead>
<tr>
<th>ZONE 1</th>
<th>ZONE 2</th>
<th>ZONE 3</th>
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</thead>
<tbody>
<tr>
<td><strong>Without Underlayment</strong></td>
<td><strong>With Underlayment</strong></td>
<td><strong>Without Underlayment</strong></td>
</tr>
<tr>
<td>Protected</td>
<td>Normal</td>
<td>Exposed</td>
</tr>
<tr>
<td>25% / 14º</td>
<td>27% / 15º</td>
<td>30% / 17º</td>
</tr>
<tr>
<td>33% / 18º</td>
<td>37% / 20º</td>
<td>40% / 22º</td>
</tr>
</tbody>
</table>

**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 rooftile should be securely fastened by nailed, screwed, clipped...
- **B:** Roftiles 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 rooftiles 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 rooftiles 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 Planum ventilation tile (Q86K) 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.

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

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

This catalogue, printed in July 2019, replaces the existing ones.