





# La Escandella

# INTEGRATED SUSTAINABLE SOLUTIONS AND ENERGY EFFICIENCY

Roof design is essential to build an energy efficient and well insulated house. La Escandella, the leading Spanish clay roof tile manufacturer, always recommends the dry installation of roofs with systems that allow internal microventilation, combined with high quality tiles and roof accessories.

Air circulation between the support board and the roof tiles (micro ventilation). Is essential to ensure a correct performance of the roof, as it prevents the appearance of moisture due to condensation.

Pitched roof designs naturally discharge water, can be well insulated, and create efficient air flow from low to high level. As they would in nature the vertices or edges of a mountain. Less energy consumption, less CO<sub>2</sub> discharged into the atmosphere, less pathologies and consequently a more organic and healthy construction, as marked by the new trends and standards of modern building (code CTE/CE).













# ROOF ACCESSORIES FOR VENTILATED ROOFS

is necessary to place gratings and combs that, allow the passage

of air, allowing microventilation.

Advanced solutions adapted to the type of tile we use (Traditional 35 years warranty: Curved, Mixed and Flat or H-Selection 100 years warranty: Visum3, Planum, Selectum, Vienna and Innova) with which we get a constant and fluid ventilation of our roof and reduce heat and humidity in our homes, effectively insulating and waterproofing our homes. In addition, the execution in this type of roofs is cleaner and more accurate, since all the parts that compose the cover must fit together. To do this, it's necessary to make a correct rethink, knowing perfectly the solutions of all the singular points.





Dry fixing the ridge line allows microventilation at high level to work in tandem with eaves level ventilation to create a natural passage of air to remove condensation build up behind the tiles. Metal fixing clips create a firm hold on the ridge tiles for extreme weather



#### FLASHINGS AND COLLARS SYSTEMS - Page 09

In the case of chimneys, ventilation ducts or skylights, vertical encounters must be impervious and prevent water filtration. For this, Flex-Alu connection systems and metalic counterflashing are used which, thanks to their adaptability to the curvature of the tiles, ensure the tightness of the unique encounters.



## ISOLATION

#### **BREATHABLE MEMBRANE**

#### Waterproof membrane

Waterproof membrane with a high transpiration capacity and 3 overlapped and thermosealed layers. The weight is of 115 g/m², 135 g/m², 150 g/m² and 180 g/m² and allowing a high permeability to steam, while it is waterproof and protects against wind.





Roll 75 m $^2$  1,5 m width x 50 m long / 4.9" x 54.68 yd

CAM65 115 g/m<sup>2</sup> CAM21 135 g/m<sup>2</sup> CAM52 150 g/m<sup>2</sup> CAM53 180 g/m<sup>2</sup>

#### **Condensation Barrier Membrane**

Condensation barrier membrane with three overlapped and termosealed layers. The weight is of 145 g/m<sup>2</sup>.



Nagel Adhesive tape - under tile drilling

Adhesive tape used between batten supports and water-

proof membrane to prevent leakage where battens are nai-



#### CAM56

145 g/m<sup>2</sup>
Roll 75 m<sup>2</sup>
1,5 m width x 50 m long /
4.9" x 54.68 yd

#### **ADHESIVE TAPES**

#### Adhesive tape for Waterproof membrane

Polyethylene adhesive tape with reinforcing mesh covered with high resistance acrylic adhesive. Designed for bonding waterproof membranes in its overlapped area preventing the air and wind flow through the different layers.



Adhesive tape for Waterproof membrane 1 side

CAM44

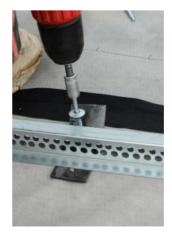
Width: 5 cm / 1.97" Roll 20 ml / 21.87 yd



Adhesive tape for Waterproof membrane 2 sides

CAM42

Width: 5 cm / 1.97" Roll 50 ml / 54.68 yd



led.



CAM43

Width: 4 cm / 1.57" Roll 30 ml / 32.81 yd

# LAYING

#### **BATTENS**

Battens form the framework that allows microventilation and serves as a basis for dry fixation of the roof tiles. They can be made of wood or metal and must be perfectly linear and of constant dimensions in height and width to allow the uniform support of the tiles.







5 x 5 x 240 cm / 1.97" x 1.97" x 94.48"

batten for Solar System

L.M of Treated wood





CAM68 L.M. of Treated wood batten

4 x 3 x 240 cm / 1.57" x 1.18" x 94.48"





CAM042
Galvanized metal batten

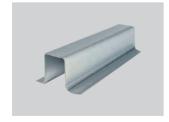
210 cm long x 0,6 mm thickness / 82.67" x 0.02"





CAM043 Ventilation metal batten

3 x 2 x 250 cm / 1.18" x 0.79"x 98.42" 0,6 mm thickness / 0.02"



#### Galvanized steel batten

#### **CAM050**

5 x 3 x 250 cm / 1.97" x 1.18" x 98.42" 0,6 mm thickness / 0.02"

#### **CAM044**

2 x 3 x 250 cm / 0.79" x 1.18" x 98.42" 0,6 mm thickness / 0.02"



#### **SCREWS**

Fixing elements that have as function the union of the roof tiles and the accessoires to the support element, in order to avoid the movement of the same.





#### Hexagonal head drill screws Metal-Metal

CAM93

100 units / box 5,5 x 22 mm / 0.22" x 0.873"



#### Flat head screws Concrete

**CAM045** 

100 units / box 7,5 x 72 mm / 0.3" x 2.83"



Flat head screws Wood - Wood

CAM95

100 units / box 5 x 70 mm / 1.96" x 2.8"



#### Flat head screws Tile - Wood

CAM97

100 units / box 3,5 x 50 mm / 0.14" x 1.97"



### Self-supporting flat head drill screws Tile - Metal

CAM94

100 units / box 4,2 x 45 mm / 0.17" x 1.77"

#### **HOOKS**

Preformed hooks in pre-varnished aluminum. Its function is to anchor the ridge pieces to the batten. They are fixed by screws and the ridge pieces are mechanically fitted thanks to the shape of the hook; this allows the installation without mortar.









#### Ridge Tile Hook Q01\*

CAM07R Red CAM07N Black CAM07M Brown

50 units / box



#### Round Ridge Tile Hook O02\*

CAM27RNEW Red CAM27NNEW Black CAM27MNEW Brown

50 units / box



#### Pyramid Ridge Tile Hook O90\*

CAM10R Red CAM10N Black

50 units / box



#### Angular Ridge Tile Hook Q120\* - Q145\*

CAM123R Red CAM123N Black

Curved Roof Tile 50 LOMERA T5 50 units / box

#### **HOOKS / CLIPS**

Dry fixation system that ensures fixation and prevents lifting tiles wind. Each clip is specifically designed to be used with a few clay tile models:

*Mechanic roof tiles*: **TG**: Mixed "S" Large | **TP**: Mixed "S" Small | **TW**: Visum3 | **TN**: Innova | **TV**: Vienna | **TI**: Planum | **TS**: Selectum *Curved roof tiles*: **T5**: Curved 50 | **T4**: Curved 40



Metal clip clipped with bumper

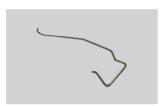
CAM64 TN/TV/TI CAM66 TW

Batten 25x38mm / 25x50mm // 0.98"x1.5" / 0.98"x1.97" Stainless steel 500 units / box

Installation by clamping or nailing in the batten







Metal hook/clip for wooden batten - TN, TV, TI

CAM59

Batten 38x27mm / 30x40mm // 1.5"x1.06" / 1.18"x1.57" Stainless steel 250 units / box

Installation by clamping or nailing in the batten

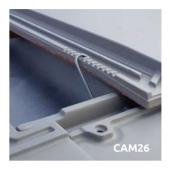




Eave hook/clip for roof tiles with lace

CAM62

Long: 8 cm / 3.15" Stainless steel 100 units / box



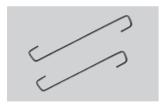


Universal clip - TG, TP, TS, TI, TN, TV

CAM26

Stainless steel 250 units / box

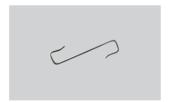
Installation by clamping or nailing in the batten



Metal clip T5

CAM61 17 cm / 6.69" CAM15 15 cm / 5.51"

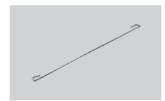
Stainless steel 400 units / box



Metal clip T4

CAM25

Long: 7,2 cm / 2.83" Stainless steel 1.000 units / box



Eave metal clip for curved roof tile

CAM74

Long: 28,5 cm / 11.22" Stainless steel 250 units / box



#### Snow stopper hook

Metal hook system preventing snow gathering and falling off in block.



#### Gancho C-315 TN / TV / TI

CAM29R Red CAM29N Black

Long: 31,5 cm / 12.40" 100 units / box

#### Gancho C-380 TN / TV / TI

CAM30R Red CAM30N Black

Long: 38 cm / 14.96" 100 units / box

## EAVF





#### Gutter-Run In-Sheet Alu

Versatile aluminium foil to be used on the eaves of the roof, to ensure a correct waterproofing in the eaves region and drainage towards the gutter. High UV resistance.

Always apply on clean and dry surfaces.

#### CAM13R Red/Black

Width: 23 cm / 9.05" Rollo 5 m 4 rolls / box



#### **EAVES VENTILATION COMB**

The bird stopper comb protects the under tile area from birds and rodents. It is installed with nails or screws directly on the first batten, the tile being overlapped. It allows the air flow in the eaves region.



Mixed "S" Large bird stopper

Q72\*

800 g 110cm high x 220cm long / 43.3" x 86.6" 800 units / pallet



Selectum bird stopper Klinker

Q136\*K

550 g 67cm high x 204cm long / 26.4" x 80.3" 700 units / pallet





## Eaves Ventilation Comb for Flat Roof Tile

CAM014R Red CAM014N Black

6 cm high x 1m long / 2.36" x 39.37" 200 units / box



## Eaves Ventilation Comb for Mixed Roof Tile

CAM016R Red CAM016N Black CAM016M Brown

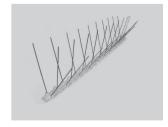
11 cm high x 1m long / 4.33" x 39.37" 200 units / box



## Eaves ventilation comb with batten

CAM058R Red CAM058N Black

6 cm high x 1m long / 2.36" x 39.37" 50 units / box



Púas anti-pájaro

CAM38

Width: 50 cm Stainless steel

#### **EAVE GRATING**

It protects the open ventilation area in the eaves against the entry of birds and rodents. The holes allow the air flow to ensure a proper ventilation.



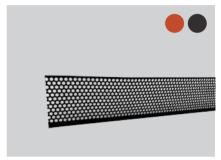
Eave grating
CAM33R Red
CAM33N Black

Width: 10 cm / 3.94" Roll 5 m / 60 m 24 rolls / box



Metalic Eave
CAM118RN Red / Black

Width: 10 cm / 3.94" Roll 5 m 24 rolls / box



Metalic eave membrane

CAM121R Red CAM121N Black

10 cm high x 2,5 m long / 3.94" x 6.5" 20 units / box







# **VALLEYS**



#### **Alu-Valley Tape**

Aluminium foil used on the valleys for collecting water from the pitch, ensuring a correct waterproofing.

High UV and aging resistance.

Always apply on clean and dry surfaces.

CAM018R Red CAM018N Black CAM018M Brown

Roll 5m - 4 rolls/box

#### **Sealing Wedge**

Wedge-shaped polyurethane foam strips with acrylic polymer primer. The product is air permeable, which is advantageous for the roof ventilation process. The strips have low water absorption and allow to evacuate the steam accumulated underneath.



CAM37R

6cm width x 1m long / 2.36" x 39.37" Red 200 units / box

#### Repairer paint pot

Special paint for tiles, used in the assembly of dark colored roofs, to increase the beauty of the red clay texture that are visible when cutting pieces during the installation of the valleys or other meeting points.





CAM0500 Galaxy CAM0501 Slate CAM0502 Brown CAM0503 Grey

Pot 750ml



## CONNECTION

#### **JOINTS**



#### Flex - Alu

Pleated band to ensure maximum adaptability and flexibility when applying. Alu-Flex is ideal for the waterproofing and sealing of joints on the roof: garrets, chimneys, walls, skylights, windows, ...

High UV and aging resistance.

Always apply on clean and dry surfaces.

#### Width: 40cm / 15.75"

CAMF8N Red CAMF8N Black CAMF8M Brown

Roll 5m 4 rolls / box

#### Width: 30cm / 11.81"

CAM08R Red CAM08N Black CAM08M Brown

Roll 5m 1 roll / box

#### Aluminium counter lashing

Prelacquered sheet in 3 different Colors to be used for side finishing of the Alu-Flex bands for vertical joints and chimneys.



CAM36R Red CAM36N Black CAM36M Brown

2m long / 78.74" 20 units / box



#### CONNECTION KIT FOR CHIMNEY SUPPORT



Connection kit Ø 160 mm / 6.3"

TI / TG / TP (for waterproof membrane)

CAM130



Connection kit Ø 160 mm / 6.3"

TI / TG / TP Butyl (for other surfaces)

CAM131



Pipe reduction Ø 160 to 125 mm / 6.3" to 4.9" CAM132



Flexible pipe Ø 125 mm / 4.9" CAM133

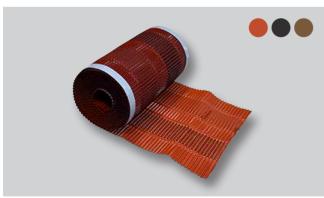
## RIDGES AND ROOF VALLEYS

#### **ALU-ROLL**

Alu-Roll for ridge and roof valleys allows ventilation of the roof. Place in the center of the over-lift batten and pin it or staple it to it. Once attached to the batten, the flexible part of the Alu-Roll is pressed onto the tile, the protective film is removed from the adhesive strip and glued to the tile.

It is necessary to place the ridge pieces so as to ensure tightness against rain and protection from prevailing winds.





#### Alu-Roll With Micro Cut

Width: 30cm / 11.8"

CAM01R Red CAM01N Black CAM01M Brown

Roll 5m 5 rolls/box

#### Width: 40cm / 15.75"

CAMF1N Red CAMF1N Black CAMF1M Brown

Roll 5m 4 rolls/box





#### Alu-Roll Membrane

Width: 31cm / 12.2"

CAM09R Red CAM09N Black CAM09M Brown

Roll 5m 7 rolls/box

#### Width: 39cm / 15.35"

CAMF9N Red CAMF9N Black CAMF9M Brown

Roll 5m 7 rolls/box

CAMF950R Red CAMF950N Negro

Roll 5m 7 rolls/box

#### UNDER RIDGE KITS AND BATTEN BRACKETS

#### Under ridge kit

The kit includes 2 supports and a under ridge composed of two adaptable aluminum skirts and a perforated stainless steel sheet, which ensures perfect ventilation.



Ridge clouser + 2 ridge battens bracketsl (CAM51)

**CAM010** 

1m long / 39.27" 20 units/box

#### Ridge batten supports

Aluminium ridge supports for battens to be adapted to any rigid surface. Install with screws and nails, leaving 80 cm between fixation elements.



#### Adjustable Ridge Batten Bracket

**CAM010** 

Width: 5cm / 1.97" Galvanized steel 50 units/box



#### Ridge Batten Bracket with knock in screw

Screwable batten support is directly installed on the wooden beam in the ridge to the height required, leaving 80 cm between each one.



#### CAM05

Width: 5cm / 1.97" Galvanized steel 50 units/box

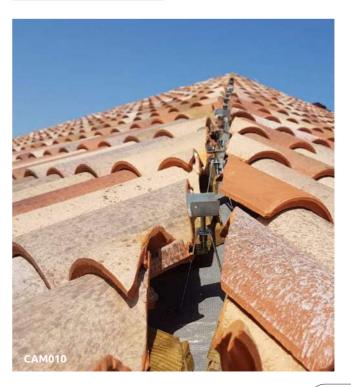


#### Ridge Batten Bracket MOD.Z

**CAM051** 

Width: 5cm / 1.97" Galvanized steel 100 units





## UNDERROOFING SYSTEM

The supports or sheets of fibrocement act as support element of the tiles, performing the function of second cover that guarantees the tightness of the roof in those cases that the slope or conditions required is not met.



### CURVED (MISSION) AND MIXED (S-TILE) PROFILES



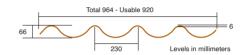
Roof tile color 250 x 96.4 cm / 98.42" x 37.95"

M0220

32 kg/unit 40 units/pallet Roof tile color 152 x 96,4 cm / 59.84" x 37.95"

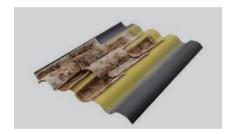
M0201

20 kg/unit 40 units/pallet Use with ADHELLA FOAM. no battens. Norm UNE-EN-494:C 1X



Application: Clay Curved (Mission) tiles with a width tapering rom 18 cm to 22 cm (7.09" to 8.66") and Large Mixed (Large S) roof tiles.

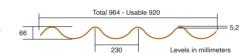




IMPERLINE 124 x 96,4 cm / 48.82" x 37.95"

AMA13

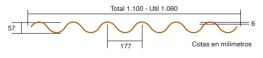
10 kg/unit 80 units/pallet Place 3 supports over 55 cm or place a continued support. According to UNE 88111-2011.



#### GRANONDA PROFILE



Use with ADHELLA FOAM. no battens. Norm UNE-EN-494:C 1X



Roof tile color 250 x 110 cm / 118.11" x 43.30"

M0204

36 kg/unit 30 units/pallet Roof tile color 200 x 110 cm / 98.42" x 43.30"

M0205

29 kg/unit 30 units/pallet Roof tile color 152 x 110 cm / 78.74"x 43.30"

M0206

22 kg/unit 30 units/pallet Roof tile color 125 x 110 cm / 59.84" x 43.30"

M0207

18 kg/unit 30 units/pallet Roof tile color 300 x 110 cm / 49.21" x 43.30"

M0204

43 kg/unit 30 units/pallet

Application: Curved (Mission) tiles with a width tapering 2 cm to 16 cm (7.09" to 8.66") and Large Mixed (Large S) roof tiles.

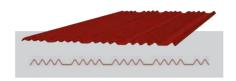


#### **O**nduline

#### **UNDERROOFING SYSTEM - ONDULINE**

#### **Placas Onduline**

Complete waterproofing system of roofs and inclined roofs under tiles designed to offer a total guarantee of tightness, even if they move or displace the tiles, even on low slopes (10%). In addition, condensation is avoided thanks to the corrugated format of the waterproof asphalt plates and their dry installation system.



#### Corrugated roof BT 150 Plus (Universal)

#### CAM76

Clay curved (mission) tiles with a width tappering from 18,5 to 22 and tiles with lock Dimensions: 2m x 1m

Usable area: 1,8m<sup>2</sup>

954 kg/unit - 150 units/pallet

Fixing: 3-8 / m<sup>2</sup>



#### Corrugated roof BT 200 (Curved T4 and T40)

#### CAM75

Clay curved (mission) tiles with a width tappering from 14 to 18. Dimensions: 2m x 1m

Usable area: 1,75m<sup>2</sup> 954 kg/unit - 150 units/pallet

Fixing: 3-8 / m<sup>2</sup>

#### SIATE Onduline System (Universal)

The Onduline SIATE roof system is a lightweight and complete solution of thermal insulation and exterior waterproofing for inclined roofs. It stands out for facilitating the installation of thermal insulation on the roof, maintaining a constant thickness and without thermal bridges, which improves performance compared to traditional systems. Composed of insulating sandwich panel and Underroofing System Onduline.



#### CAM91

Composed of insulating sandwich panel and Onduline Under DRS tile.





#### CAMA20

Tiles with lock  $3 \times 2,2 \times 200 \text{ cm} /$ 1.18" x 0.87" x 78.7" 100 units / box



#### **PVC ribbon BT**

Plastic crawler designed to facilitate the installation of tiles with lace on asphalt plates under tile, maintaining ventilation of the roof and avoiding the use of mortar.



CAM79 Seal plate 15 cm x 10 ml longitud / 59" x 32 8 ft 4 rolls/box



Wood or metal support 6.5 cm / 2.56° 100 units / box



#### Universal screw

Being made of carbon steel, it has excellent corrosion resistance and thanks to its metal washer with rubber ensures tightness.



#### CAM78

Concrete surface 7 cm x 5 mm / 2.75" x 1.96" 200 units / box



Providing great resistance without the need for plastic dowel.



#### CAM84

Ceramic surface 8 cm x 10 mm / 2.15" x 0.39" 100 units / box



#### Nylon nail

Thanks to its composition and hollow format the nylon rod that is inserted through the nail expands the wings of this getting the grip of asphalt plates in hollow ceramic elements.

#### Spiral nail

CAM88

Wood surface 8 cm / 2.15" 200 units / box



#### **CAM87**

With CAM88 and CAM78 200 units / box



#### Washer

Designed to provide tightness to the fixing of asphalt plates with Spiral Nail or when using screws for wood without washer.

## La Escandella ROOFING THE WORLD



# CLAY ROOF TILES THAT MAKE A DIFFERENCE





