

S-INTERLOCKING roof tiles

The safest option
Practical and easy to install

We offer three formats that combine curved profiles.

Thanks to more advanced production processes and the quality of clay used by Tejas Borja, our S-Interlocking roof tiles are the best solution for roof protection.



TB-4®

TB-12®

TB-10

THE WORLD'S BEST-SELLING ROOF TILES

Courtesy of their aesthetic and architectural versatility, S-Interlocking roof tiles are the most commonly used across all five continents.

S-Interlocking roof tiles

RESIDENTIAL DEVELOPMENT (TAIWAN)



TB-12[®] Technical Information

Size	439 mm x 260 mm
Minimum pitch	30% - 17° (*)
Weight	3,15 kg/unit
Units / sq. m.	12,8 tiles
Useful width	205 mm
Useful length (batten distance)	370 / 380 mm

Approximate values: If the roof tiles are installed on battens, the useful length must be calculated on site. A tolerance of ± 2% is allowed on the dimensions of the roof tiles according to UNE - EN 1024.
Type: Double lateral overlapping and double lengthwise overlapping. Installation must comply with Code of practice for the design and fixing of roofs with clay roofing tiles for the region and Tejas Borja specifications.

The certified characteristics for the NF Terracotta tiles are : Structural faults, the geometric characteristics , resistance to flexural strength , impermeability , frost resistance for all products made with red mixture. AFNOR Certification / 11 rue Francis de Pressensé / 93571 LA PLAINE / SAINT-DENIS CEDEX / www.marque-nf.com

(*) Check pitch panel according to the roof length and the geographical area.



ADVANTAGES

1

The best seller roof tile in the market.
Over half a million houses worldwide.



500 thousand houses

2

Multiple discontinuous interlocks designed for watertight assembly.



3

Perfect alignment, level fixing to the structure with double nib support.



4

High resistance thanks to the reinforcement ribs back.



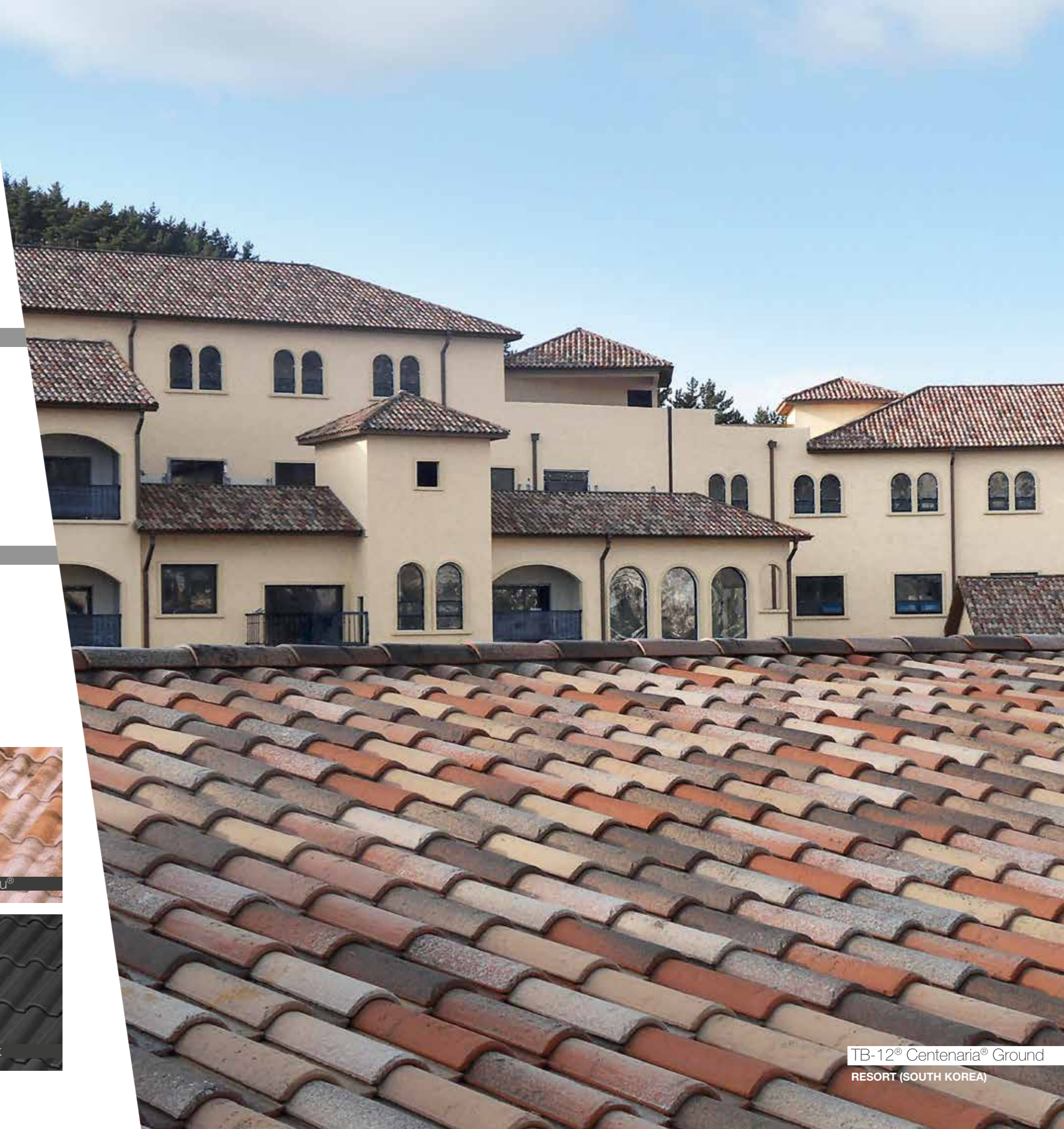
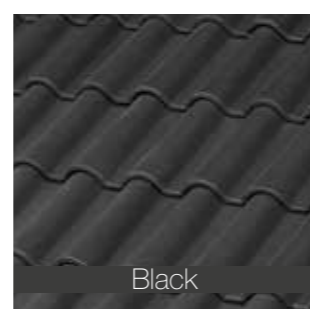
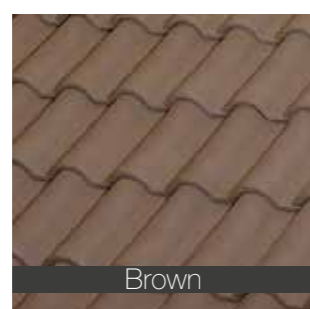
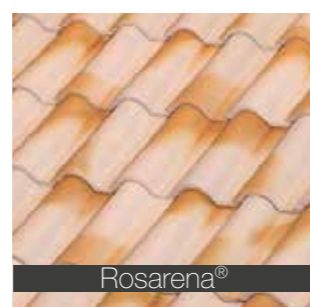
TB-12[®] Red

TB-12® Colours

CENTENARIA®




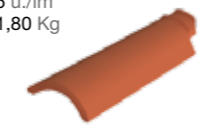




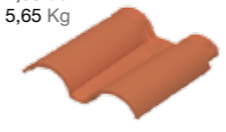















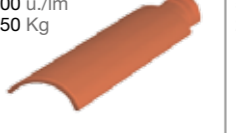
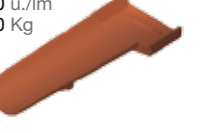
NATURE








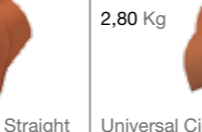





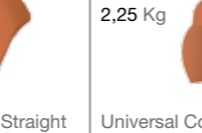



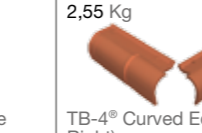

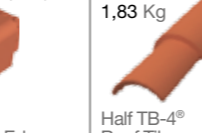
S-INTERLOCKING roof tiles

Accessories



<p>5 u./lm 2,30 Kg</p>  <p>One Half TB-4® 25 26 w 6 h</p>	<p>5 u./lm 1,80 Kg</p>  <p>Half TB-12® Roof Tile 44 16 w 6,5 h</p>	<p>2,50 u./lm 4,50 Kg</p>  <p>TB-12® Tile and a Half 43,6 36 w 7 h</p>	<p>5,00 u./lm 2,20 Kg</p>  <p>2/3 TB-12® 30,5 26,5 w 7 h</p>	<p>3,24 Kg</p>  <p>2/3 Tile and a Half TB-12® 30 36,2 w 7 h</p>	<p>2,50 u./lm 2,50 Kg</p>  <p>Half TB-10 Roof Tile 47,5 19,2 w 9,5 h</p>
<p>2,50 u./lm 5,65 Kg</p>  <p>TB-10 Tile and a Half 47 43 w 7,5 h</p>	<p>5,00 u./lm 3,00 Kg</p>  <p>2/3 TB-10 33,5 29,5 w 7 h</p>	<p>3,50 Kg</p>  <p>TB-4® Ventilation 43,5 26 w 10 h</p>	<p>3,20 Kg</p>  <p>TB-12® Ventilation 44 26 w 7 h</p>	<p>4,10 Kg</p>  <p>TB-10 Ventilation 47,5 29,5 w 8,5 h</p>	<p>4 Kg</p>  <p>TB-4® Chimney Carrier 43,5 26 w 18 h 16 D 13 d</p>
<p>4,15 Kg</p>  <p>TB-12® Chimney Carrier 43,5 25,5 w 11 h 16 D 13 d</p>	<p>4,40 Kg</p>  <p>TB-10 Chimney Carrier 47 29,5 w 12 h 18,5 D 16 d</p>	<p>2,15 Kg</p>  <p>130 Universal Chimney 20,4 D 18 d 23,5 h</p>	<p>2,35 Kg</p>  <p>140 TB-10 Chimney 22,5 D 20 d 23,5 h</p>	<p>1,70 Kg</p>  <p>Universal Ventilation Cap 24,5 D 22 d 6 h</p>	<p>5 u./lm 0,60 Kg</p>  <p>Universal Eave Closure 13,8 7,1 w 6,8 h</p>
<p>5 u./lm 1 Kg</p>  <p>One Half TB-4® Cover Decocurva® 25 16 w 5,5 h</p>	<p>5,00 u./lm 2,60 Kg</p>  <p>TB-4® Cover Decocurva® 46 16 w 6 h</p>	<p>5,00 u./lm 2,00 Kg</p>  <p>TB-12® Cover Decocurva® 37 17 w 7 h</p>	<p>5,00 u./lm 2,50 Kg</p>  <p>TB-12® Pan Decocurva® 47 16 w 7 h</p>	<p>5,00 u./lm 2,50 Kg</p>  <p>TB-10 Cover Decocurva® 47 19,5 w 9,5 h</p>	<p>5,00 u./lm 2,60 Kg</p>  <p>TB-10 Pan Decocurva® 49,5 15 w 7 h</p>

Dimensions in cm.
Check colours availability for accessories.

<p>2,50 u./lm 2,85 Kg</p>  <p>Circular Ridge 43 23 w 9 h</p>	<p>2,95 Kg</p>  <p>Circular Hip Starter 43 20 w 8,5 h</p>	<p>4,20 Kg</p>  <p>Circular 3 Ways 37,5 23 w 9,5 h</p>	<p>4,50 Kg</p>  <p>Circular 4 Ways 38,5 44,5 w 13,5 h</p>	<p>2,40 Kg</p>  <p>Universal Circular Straight End Cap 7,5 24,5 w 27,9 h</p>	<p>2,80 Kg</p>  <p>Universal Circular Curved End Cap 17,5 26,7 w 27 h</p>
<p>2,50 u./lm 3,50 Kg</p>  <p>Cover+ Ridge 44,5 28,5 w 10,5 h</p>	<p>3,20 Kg</p>  <p>Cover+ Hip Starter 43,5 23 w 8,5 h</p>	<p>3,10 Kg</p>  <p>Cover+ 3 Ways 32,5 42,5 w 14,5 h</p>	<p>4,00 Kg</p>  <p>Cover+ 4 Ways 40,5 40,5 w 14 h</p>	<p>2,00 Kg</p>  <p>Universal Cover+ Straight End Cap 6,5 27 w 31 h</p>	<p>2,25 Kg</p>  <p>Universal Cover+ Straight End Cap 14,7 27,5 w 29,5 h</p>
<p>5,00 u./lm (on monopitch) 0,80 Kg</p>  <p>Universal Cover+ Straight End Cap 24 12,2 w 5,6 h</p>	<p>2,50 u./lm 3,00 Kg</p>  <p>Universal Straight Edge (Left/Right) 47 9 w 17 h</p>	<p>2,50 u./lm 3,25 Kg</p>  <p>Universal Curved Edge (Left/Right) 47 18,7 w 16 h</p>	<p>2,50 u./lm 2,55 Kg</p>  <p>TB-4® Curved Edge (Left/ Right) 43 13,5 w 14 h</p>	<p>2,50 u./lm (On monopitch) 3,00 Kg</p>  <p>Universal Angular Edge 43 14,5 w 14,5 h</p>	<p>2,5 u./lm 5 u./lm 1,83 Kg 1,83 Kg</p>  <p>Half TB-4® Roof Tile 44 15,5 w 6 h</p> <p>TB-4® Cover Decocurva® 44 15,5 w 6 h</p>



TB-10 Manoir®
RESIDENTIAL DEVELOPMENT (TAIWAN)

TECHNICAL INFORMATION S-INTERLOCKING ROOF TILES

Installation must comply with the technical standards applicable in each territory. Code of practice for design and fixing of roofs with clay roofing tiles and Tejas Borja specifications.

	TB-4®	TB-12®	TB-10
Dimensions	442 mm x 258 mm	439 mm x 260 mm	470 mm x 294 mm
Weight	3,40 kg/unit	3,15 kg/unit	4,10 kg/unit
Useful length (batten distance)	370 mm	370 / 380 mm	385 mm
Useful width	205 mm	205 mm	230 mm
Lateral overlap	55 mm	55 mm	64 mm
Head overlap	69 mm	69 / 59 mm	85 mm
Units per sq. m.	12,8 tiles	12,8 tiles	10,8 tiles
Weight per sq. m	44 Kg	40 Kg	44 Kg
Units per ml eave line	5,0 tiles	5,0 tiles	5,0 tiles
Roof Tiles per pallet	120 / 180 / 240 units	240 / 248 units	174 units
Waterproofing	Waterproof membrane	Waterproof membrane	Waterproof membrane
Battens per sq. m.	2.7	2.7	2.6

Approximate values: If the roof tiles are installed on battens, the useful length must be calculated on site. A tolerance of ± 2% is allowed on the dimensions of the roof tiles according to UNE - EN 1024.
Type: Double lateral overlapping and double Lengthinal overlapping. Installation must comply with the Code of practice for the design and fixing of roofs with clay roofing tiles for the region and Tejas Borja specifications.
 (*) Check pitch panel according to the roof length and the geographical area.

WHY DRY INSTALLATION?

Dry installation has significant advantages over conventional installation, as well as improving the performance of the roof during both summer and winter.

To ensure that the roof is installed correctly, air must circulate continuously in the space under the roof tiles. This micro-ventilation will allow air to enter via the eave lines and leave through the ridge lines, increasing through the use of ventilation roof tiles distributed along the roof.

During the summer this air chamber will reduce the amount of heat received by the support for the roof tile and, therefore, the heat transferred into the building, reducing air conditioning costs. In winter, indoor ventilation will prevent condensation from forming on the materials used to build up the roof (roof tiles, insulation, support, etc.), as they harm their durability. Furthermore, this condensation can affect the comfort of the building, producing moisture that is conducive to the formation of moss and bacteria that reduce the quality of the air inside.

With regards fittings, the use of mortar is not recommended due to its poor reaction with ceramics and the rigidity of joints. Roof tiles should be fixed mechanically or with adhesives made specifically for roof tiles, since these give the materials the necessary room to allow for the movements caused by expansion and changes in temperature.

ROOF SLOPES

Each roof must be planned taking into account where it should be built and the length of the deck, in accordance with the technical standards applicable in each territory. It is for this reason that for each area and location, must take into account of the minimum slopes for installation and the roof length.

Pitch panel according to the roof length and the location. (according to UNE - 136020)

	Location	Roof length up to 6.5 m	Roof length from 6.5 to 9 m	Roof length from 9 to 12 m
Zone 1	Protected	25% - 14°	26% - 15°	27% - 15,5°
	Normal	25% - 14°	28% - 16°	32% - 18°
	Exposed	33% - 18,5°	35% - 19,5°	42% - 23°
Zone 2	Protected	25% - 14°	28% - 16°	30% - 17°
	Normal	27% - 15,5°	32% - 18°	35% - 19,5°
	Exposed	37% - 20,5°	39% - 21,5°	45% - 24,5°
Zone 2	Protected	27% - 15,5°	30% - 17°	35% - 19,5°
	Normal	30% - 17°	36% - 20°	40% - 22°
	Exposed	40% - 22°	43% - 23,5°	50% - 26,5

Use the breathable/waterproof membrane on the support.
 A special study should be carried out for roof length more than 12m in length (ask us).

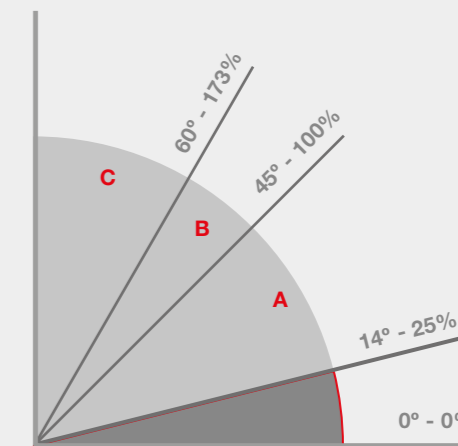
FITTING

Roof tiles on the roof surface must be fixed to the support to a greater or lesser extent, depending on the pitch. In the case of singular points such as eave lines, edges, hip lines, valleys, joints and the ridge line, all roof tiles and accessories of these joints must be fixed to the battens.

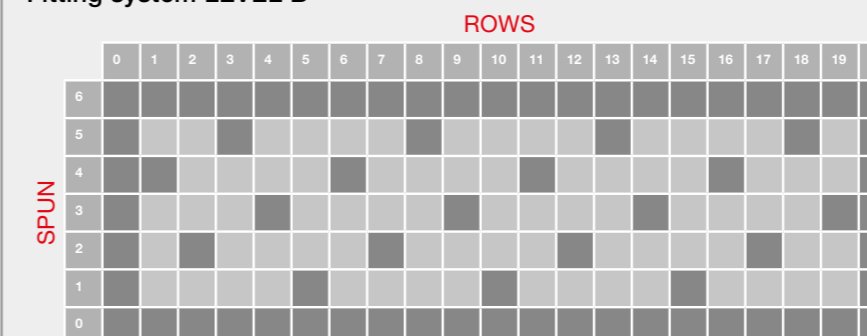
We recommend that all roof tiles that form the perimeter of each skirt be fixed mechanically.

Batten type:	Metallic
	Treated wood
Dry installation:	Self-drilling stainless screws or nails (depending on the support)

- A 25% - 100%** The roof tiles will rest on battens, since they are provided with nib support.
- B 100%-173%** All the roof tiles around the perimeter of each roof surface must be fixed and at least one in every five should be fixed in a regular manner.
- C > 173%** In areas with strong winds, exposed areas or areas with basic seismic acceleration of > 0.12g, all roof tiles should be fixed mechanically to the battens.



Fitting system LEVEL B

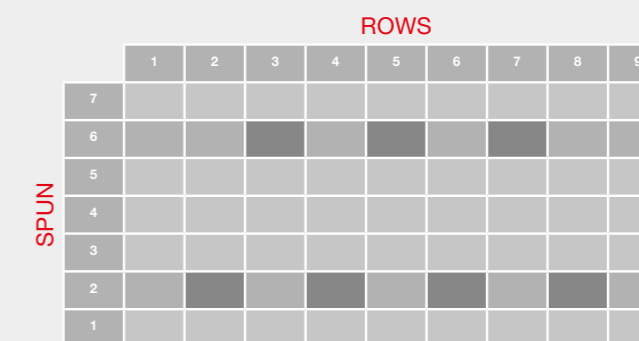
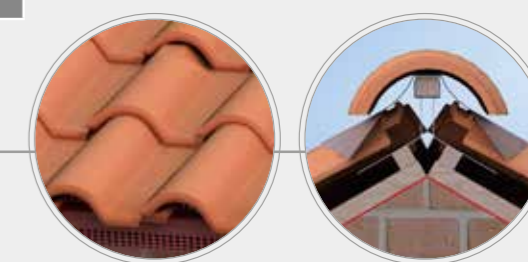


VENTILATION

Under-tile ventilation is necessary at all times. This will guarantee the durability of the material used to build the roof with their optimal characteristics, improving the hygrothermal performance of the roof tiles against the moisture resulting from condensation.

There must be a continuous air flow between eave lines and ridge line. To this end, a space must be left between the roof tiles and the support. As a result, eave lines, ridge lines and singular points must never be filled in with mortar, as this will impede micro-ventilation.

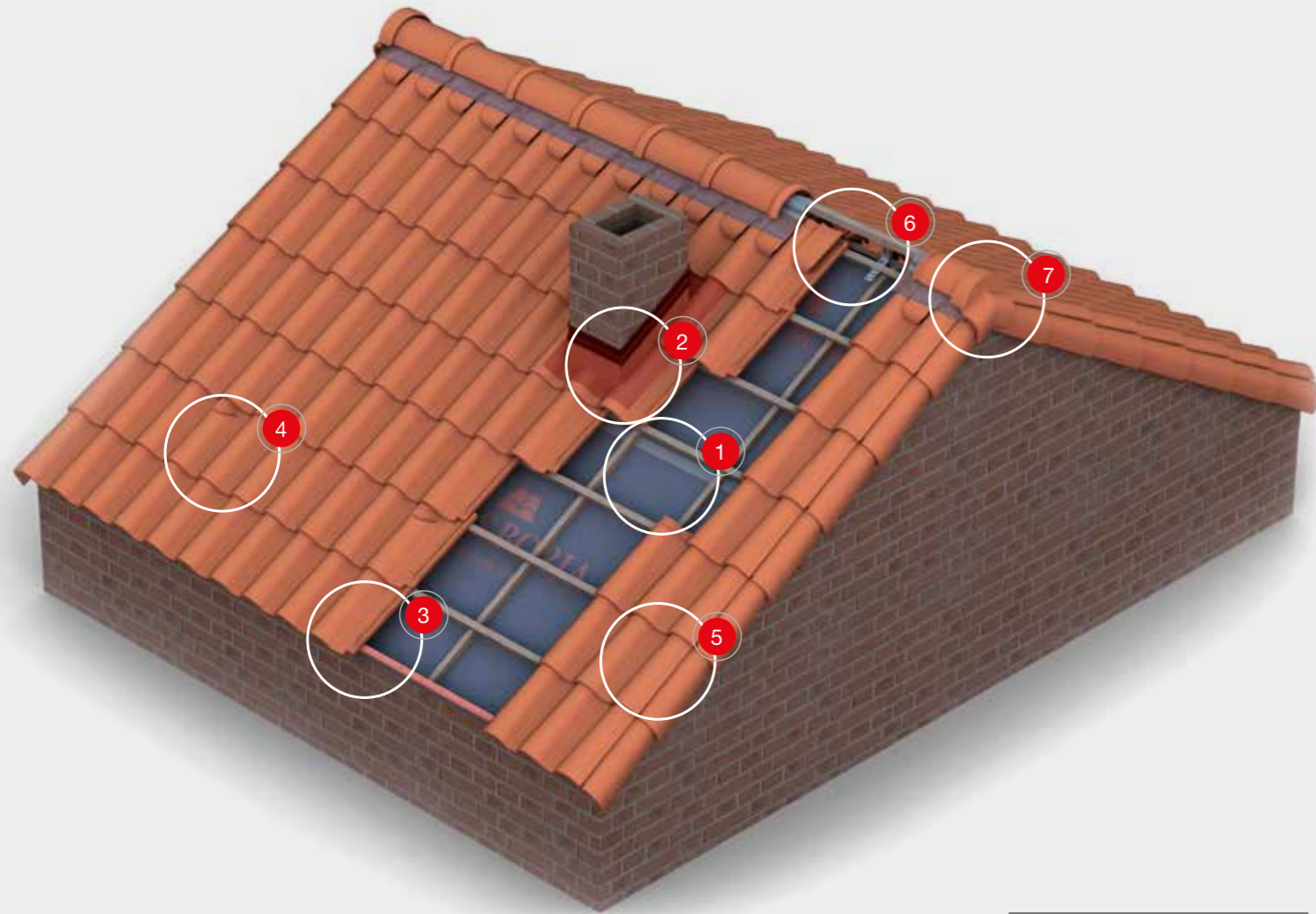
Ventilation roof tiles will also be installed in a uniform manner across the surface of the roof. In case of dry installation, it is recommended that at least 1 ventilation roof tile be used every 10 sq.m. and 4 ventilation roof tiles per the roof surface.



Example case of distribution of ventilation roof tiles on a 7m x 9m rectangular roof surface (63 sq.m.)

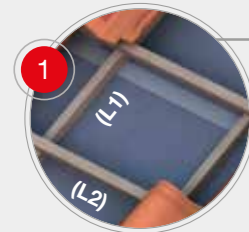
FITTING INSTRUCTIONS S-INTERLOCKING ROOF TILES

Always follow the Code of practice for installation of roofs with clay roofing tiles in accordance with latest regulations and those applicable in each zone of application.



RECOMMENDATIONS

To ensure their optimal installation, S-Interlocking roof tiles should be fixed to a support previously prepared with a double batten layout.
For more information on the dry installation of S-Interlocking roof tiles, watch the explanatory video at www.tejasborja.com



A breathable waterproof membrane should be laid on the support of the roof and the main battens (L1) should be installed every 50/70 cm, parallel to the steepest slope. The horizontal support battens (L2) for the roof tiles should be fixed to the main battens depending on the useful length of each roof tile (the useful length must be calculated on site).



Waterproof and breathing membrane



Multi-use PREMIUM

To adequately solve roof joints and chimneys, multi-use (Premium or Aluminium) waterproofing bands should be used. Once attached to the clean dry surface, they must then be finished with the Counter flashing profile, sealing the upper line with a continuous line of putty.



2



To prevent birds from entering the roof and allow ventilation, Eave ventilation comb or Eave Closure (clay accessory) should be installed.

The first batten to be installed on the eaves must be 2 cm taller than the others. To achieve this effect, a taller batten or a Eave Ventilation Comb Profile, which combines both products, can be installed in this area.

S-Interlocking roof tiles are installed from left to right, and from the eave to the ridge line. The first row of roof tiles have variable overhanging, depending on the model and installation.



Universal Eave Closure



Bird stop grate



Eaves comb profile

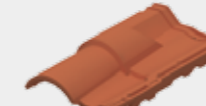
Ventilation roof tiles are installed in the same manner as other roof tiles, interlocking into each other laterally and from the top. These roof tiles should be distributed along the roof surface in accordance with the function and type of installation.



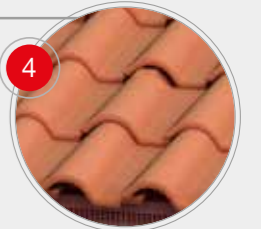
TB-12° Ventilation



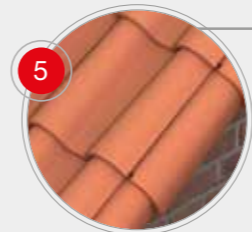
TB-10 Ventilation



TB-4° Quattro Ventilation



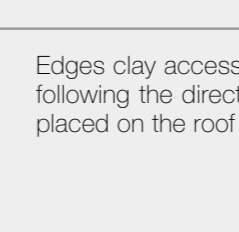
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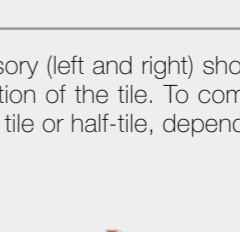
Half TB-12° Roof Tile



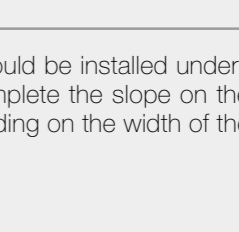
TB-12° Tile and a Half



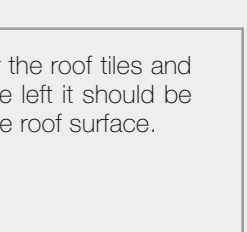
Half TB-10 Roof Tile



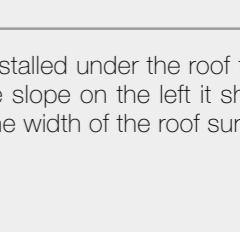
TB-10 Tile and a Half



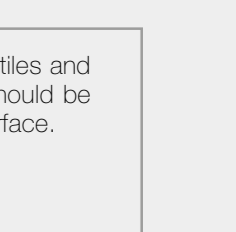
Half TB-4 Quattro Roof Tile



Universal Straight Edges



Universal Curved Edges

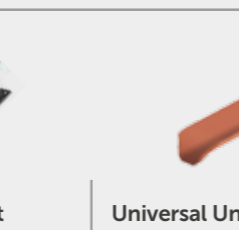


TB-4° Quattro Curved Edges

Edges clay accessory (left and right) should be installed under the roof tiles and following the direction of the tile. To complete the slope on the left it should be placed on the roof tile or half-tile, depending on the width of the roof surface.



Cantilever support



Universal Under Ridge

The batten installed on the ridge line should be attached to the Cantilever supports. To install the battens, they must be installed to the Cantilever support at the required pitch and height so that the ridges are directly supported on the roof tiles in the last row and the Universal Under Ridge (clay accessory).



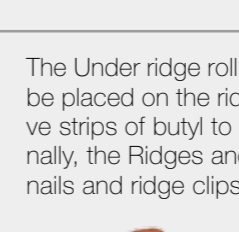
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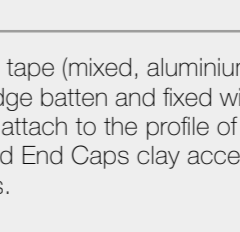
Circular Ridge



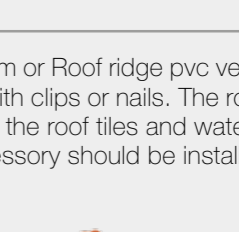
Circular Hip Starter



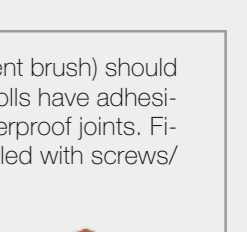
Circular 3 Ways



Circular 4 Ways



Universal Circular Straight End Cap



Universal Circular Curved End Cap

The Under ridge roll tape (mixed, aluminium or Roof ridge pvc vent brush) should be placed on the ridge batten and fixed with clips or nails. The rolls have adhesive strips of butyl to attach to the profile of the roof tiles and waterproof joints. Finally, the Ridges and End Caps clay accessory should be installed with screws/nails and ridge clips.