



# TB-10

## Characteristics\*

Length: 47 cm. / 18,50 "  
 Width: 29,6 cm. / 11,65 "  
 Weight: 4,1 kg. / 9,11 lb.  
 Units/m<sup>2</sup>: 10,5 uts. / uts./sq.ft.: 0,975  
 Useful length: 39 cm. / 15,35 "

\*Average values: if the installation is with battens, it is necessary to check the useful length.

nature



CENTENARIA®

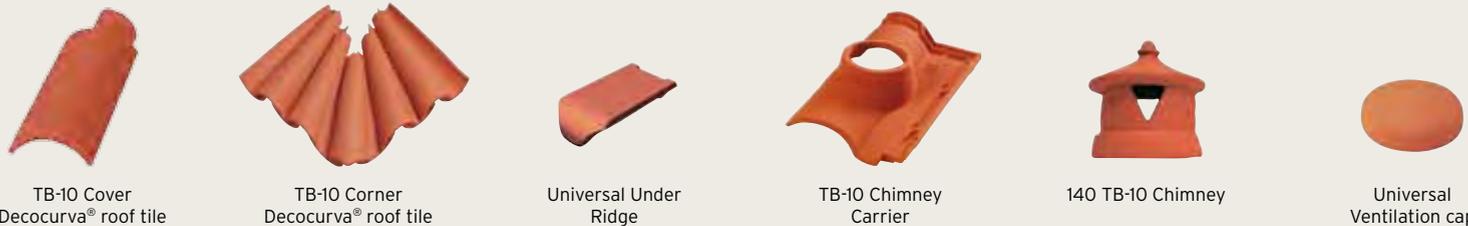
See page 150 for installation details

## Formats and finishing accessories



Dimensions as average values:

47 (L) / 43 (w) / 7,5 (H) 2,5 (Lm units)	47,5 (L) / 19,2 (w) / 6,5 (H) 2,5 (Lm units)	33,5 (L) / 29,5 (w) / 7 (H) 5 (Lm units)	47,5 (L) / 29,5 (w) / 8,5 (H)	23,3 (L) / 10,2 (w) / 9 (H) 5 (Lm units)	49,5 (L) / 15 (w) / 7 (H) 5 (Lm units)
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Dimensions as average values:

47 (L) / 19,5 (w) / 9,5 (H) 5 (Lm units)	11 pieces	24 (L) / 12,2 (w) / 5,6 (H) 5 (Lm units)	47 (L) / 29,5 (w) / 12 (H) / 18,5 (∅ ext.) / 16 (∅ int.)	23 (∅ ext.) / 20,5 (∅ int.) / 23,5 (H)	24,5 (∅ ext.) / 22 (∅ int.) / 6 (H)
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Dimensions as average values:

47 (L) / 9 (w) / 17 (H) 2,5 (Lm units)	7,5 (L) / 24,7 (w) / 27,9 (H)	6,5 (L) / 27 (w) / 31 (H)	47 (L) / 18,7 (w) / 16 (H) 2,5 (Lm units)	17,5 (L) / 26,7 (w) / 28 (H)	14,7 (L) / 27,5 (w) / 29,5 (H)	43 (L) / 14,5 (w) / 14,5 (H) 2,5 (Lm units)
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(L) Length in cm.  
 (w) Width in cm.  
 (H) Height in cm.  
 (∅ ext.) Exterior diameter  
 (∅ int.) Interior diameter  
 (Lm units) Units by linear meter

**Conversion table:**  
 1 cm. = 0,3937"  
 1 Kg. = 2,22 lb.

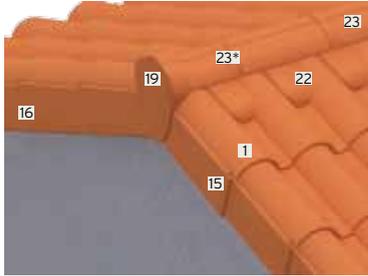
# TB-10



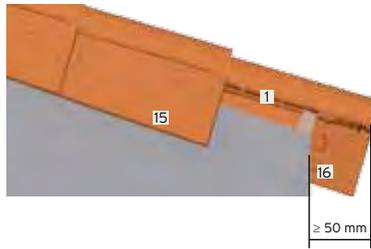
## Installation details

See formats and finishing accessories in page 114

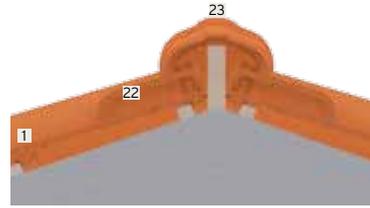
Universal circular edges and Universal circular straight end cap



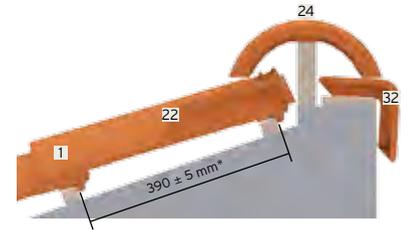
Eave line



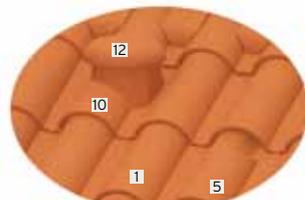
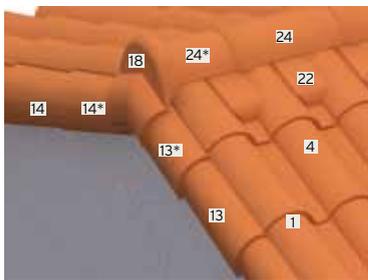
Ridge line



Monopitch



TB-10 curved edges and TB-10 circular curved end cap

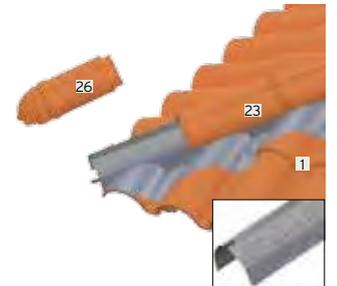


Ventilation cap option (Diagram B)

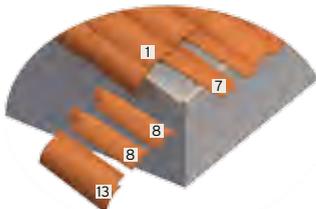
3-Ways



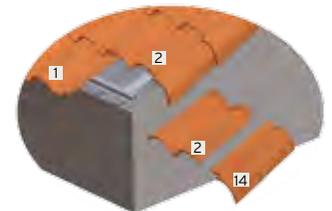
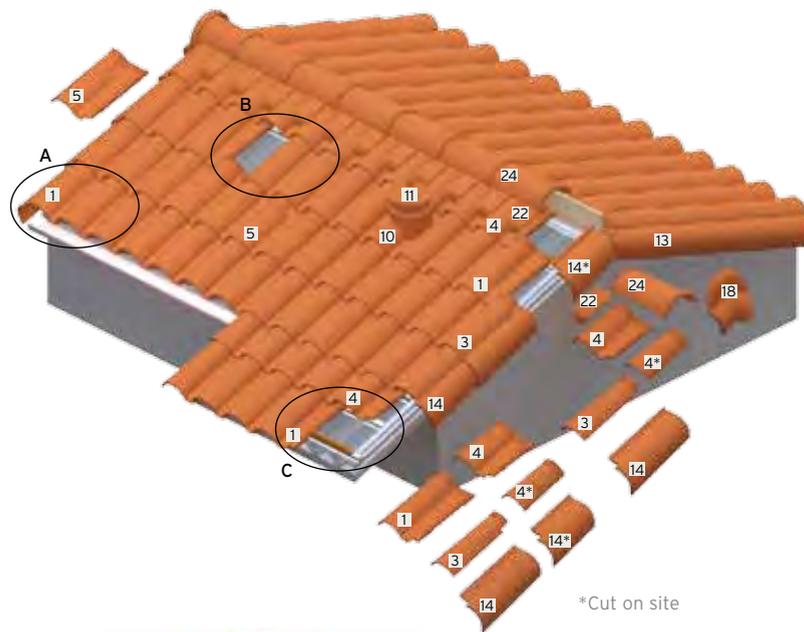
Hip line ventilation



LH 517 section

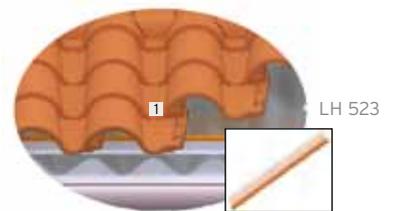
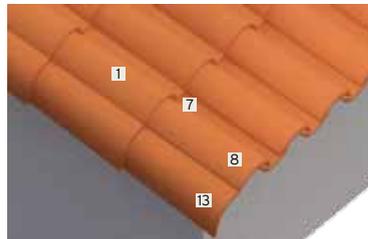


Decocurva® option (Diagram A)



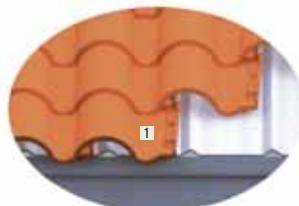
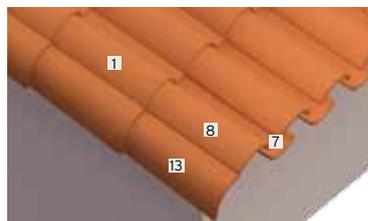
Tile and a half TB-10 option (Diagram D)

Eave line



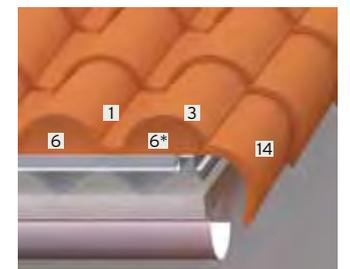
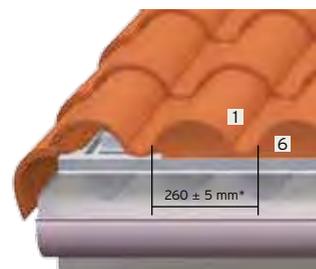
Plastic bird barrier (Diagram C)

Eave line with TB-10 Pan Decocurva® overhanging



Underroofing sheet option. (adhesive or mortar fixing)

Eave line with TB-10 eave closure



It is necessary to check the useful length on site, as per valid standards

## Installation

See AutoCAD files on [www.tejasborja.com](http://www.tejasborja.com)

### SUPPORT

This format can be placed on any type of structure, on mortar base or with wooden, metallic or PVC battens (RECOMMENDED) or continuous waterproof decking.

In any case, the deck surface has to be perfectly levelled. Special attention should be paid to sloping planes decks by smoothing down and levelling them with finishing mortar.

### ROOF TILE INSTALLATION

Start placing the roof tiles at the left bottom corner of the deck. First the left edge (13 or 15) is placed and then all the tiles of the eave line; to guide the placing use a set square, and draw perpendiculars from the ridge line.

Then the tiles are placed from bottom to top and from left to right, checking that the roof tiles are correctly aligned. End in the right side with the RIGHT EDGE (14 or 16) and the HALF TB-10 ROOF TILE (3) or the TILE AND A HALF TB-10 (2).

The use of the HALF TB-10 ROOF TILE (3) or TILE AND A HALF TB-10 (2) enables us to avoid the need of the longitudinal cut of the roof tile. When the dimensions of the deck require it, the 2/3 TB-10 ROOF TILE (4) shall be used.

The TB-10 CURVED EDGES (13 and 14) and the UNIVERSAL STRAIGHT EDGES (15 and 16) protect the side wall plaster from dampness, providing the vertexes of the deck with an efficient protection, as well as giving a more aesthetic finishing.

The ridge line and hip line must be completed with ridges accessories (23-24; see page nº 128 for accessories) and UNIVERSAL UNDER RIDGE (22), in order to guarantee a better covering. At the end of the ridge line, TB-10 CURVED END CAP (18) or UNIVERSAL STRAIGHT END CAP (19) shall be placed and SENSE CHANGEMENT, 3 WAYS (27) or 4 WAYS pieces are used when needed. At the starting position of the hip line, the HIP STARTER (26) is placed. In case of monopitch the UNIVERSAL ANGULAR EDGE (32) shall be used placing it under the ridge.

When the eave line is solved with Decocurva® pieces (7 and 8), these have to be placed according to the specific installation details for TB-10 roof tile, or in general, according to the recommendations from Installation guide, page 174.

### FIXING

- WITH BATTENS (This is the recommended type of installation.):

Wood, metal or PVC battens can be used. Place them perpendicular to the maximum pitch line, spacing each piece every 2 meters to allow the ventilation of the underside of the tiles, ensuring a minimum air passing thru of 30 mm.

Keep in mind that in order to fix of the edges, the counter battens are prepared parallel with the maximum pitches line and perpendicular to the eave line.

To fix the ceramic pieces use nails or self drilling screws made of tempered and galvanized steel and washers for fixing them with a hammer or gun, or polyurethane foam or paste specially designed to fix tiles. Finally, seal all holes\*.

- WITH MORTAR:

Use the minimum quantity of mortar necessary to fix the ceramic pieces, and always do so in a way that allows the correct ventilation of all of the roofing pieces. We recommend the use of mortars (preferably waterproof) with a 1:2:10 ratio dosage; that is, for every m<sup>3</sup> of dry sand, use 200 kg of hydraulic lime and 100 kg of cement.

### VENTILATION

The underside part of the tiles must be suitably ventilated to guarantee the adequate conservation of the roof, to prevent the formation of condensations and to prevent the ceramic

pieces getting to the degree of saturation, issues that cause serious problems, especially in climatic zones with a high risk of frosts, throughout time.

Always provide an air entrance, an under tile air flow for the entire surface and an air exit on the highest part of the roof, usually to the ridge line and hip line (on each face of the deck).

The air entrance is done on the eave line, without closing it off with mortar, using the plastic bird barrier or the TB-10 EAVE CLOSURE (6). The same goes for the valleys, if there are any.

The air flow over the entire roof it's obtained placing 1 TB-10 VENTILATION ROOF TILE (5) for every 5 m<sup>2</sup>, for a continuous deck (fixing with mortar) and 1 tile for every 10 m<sup>2</sup> for discontinuous deck (fixing with battens). Minimum 4 ventilation tiles are needed, two in the lower part of the roof and two in the upper part.

The air exit through the ridge line and hip line; be sure not to close these off with mortar, while placing RIDGES (23 or 24) (see page nº 128 for accessories) and UNDER RIDGES (22). Use VENTILATED ENCLOSURES FOR RIDGE LINE.

To prevent the obstruction of air flow throughout the entire roof, use the minimum amount of mortar to fix the ceramic pieces (attaching with mortar), or interrupt the placement of the battens at two meter intervals (dry fixing) ensuring so the minimum air flow under tile of 30 mm.

See more information in page 176.

### PITCH

Depending of the length of the deck and the geographical area or the place where it's situated (depending of wind, rain, altitude, nearness to the sea, etc.)

PITCH PANNEL (according to the roof length and geographical area)

	up to 6,5m.	from 6,5 to 9,5m.	from 9,5 to 12m.
Protected place	30%	33%	35%
Normal place	33%	36%	40%
Exposed place	40%	43%	50%

Check with us for roofs longer than 12m.

### LONG ROOF SURFACES

For roof lengths greater than 12 m, an intermediary gutter shall be used or waterproof the entire roof surface\*.



### MAINTENANCE

For a full conservation of the roof we recommend a regular inspection of it, removing moss, lichen, plants or any strange body that impedes the proper functioning of the roof.

**TEJAS BORJAS' products are in agreement with the EU regulations, conforming to our certificates and documentation published in our catalogue and our website.**

**The method of roof tile placement is the responsibility of the installer. It should follow TEJAS BORJA's technical specifications.**

\* According to TEJAS BORJA's specifications