

Curved roof tiles

Tradition and quality

Made with avant-garde technology

Curved roof tiles are the classic material used on sloping roofs.

With this format, the same pieces are used to create the pans, covers and joints of the tile.

Produced via an extrusion process, they are available in a range of sizes and can be adapted to any construction purpose. Their design allows for different levels of overlap between roof tiles.



Celler® 50x21



Curved 40x19

Curved 45x20

Curved 40x15



THE VALUE OF TRADITION

A wide range of sizes, finishes and textures makes them suitable for any type of tiling and environment. This is the most widely-used tile format.



Curved Roof Tiles Technical Information



Celler® 50x21

Size	500 mm x 210 mm / 170 mm
Weight	2,40 kg/unit
Units per sq.m.	18 tiles

Curved 45x20

Size	450 mm x 200 mm / 160 mm
Weight	1,85 kg/unit
Units per sq.m.	25 tiles

Curved 40x19

Size	408 mm x 180 mm / 140 mm
Weight	1,60 kg/unit
Units per sq.m.	30 tiles

Curved 40x15

Size	408 mm x 150 mm / 116 mm
Weight	1,35 kg/unit
Units per sq.m.	33 tiles



Approximate values: 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. Check quality approvals for each roof tile format at www.tejasborja.com

Centenaria® Ground



ADVANTAGES

1

Perfect installation without cuts.
Dimensional continuity.



2

High breakage resistance.



Maximum Lay-flatness.



3

Automatic strapped packaging.
Easy handling on deck.



Robotised

4

Rounded edges.



Curved roof tiles

Colours

CENTENARIA®



NATURE



Curved Celler® 50x21 Red And Green Glazed
MODERN HOUSE RENOVATION (BARCELONA)



ADVANTAGES

1

Dry installation.
Pre-drilled hole.



Step Celler® 50x21

Technical Information

Size	500 mm x 205 mm / 165 mm
Minimum pitch	30% - 17°
Weight	2,50 kg/unit
Units / sq. m.	10 tiles
Useful length (batten distance)	330 mm



Step Celler® 50x21

Colours



Approximate values: 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.



Step Celler® 50x21

Curved roof tiles

Accessories

2,80 Kg



Celler® 50x21 Hip Starter
50 | 17,5 w 7,5 h

2,70 Kg



Celler® 50x21 - 3 Ways
32,5 | 30,5 w 15 h

5,50 Kg



Celler® 50x21 - 4 Ways
40,5 | 37,5 w 15,5 h

5 u./lm (on monopitch)
0,80 Kg



Universal Cover+ Straight
End Cap
24 | 12,2 w 5,6 h

3,20 Kg



Celler® 50x21 Chimney Carrier
50 | 21,5/17,5 w 18 h 16 D 12 d

2,60 Kg



Celler® 50x21 Ventilation
50 | 21 w 17,4 h

2,15 Kg



130 Universal Chimney
20,4 D 18 d 23,5 h

1,70 Kg



Universal Ventilation Cap
24,5 D 22 d 6 h

2,10 Kg



45x20 Ventilation
45,5 | 20 / 16 w

1,70 Kg



49x19 Ventilation ⁽¹⁾
40,5 | 18 / 14 w

1,70 Kg



40x15 Ventilation
40,5 | 15 a

1,35 Kg



Booster 40x15
40,5 | 15 w 7 Cutted lenght

5,5 u./lm (on monopitch)
0,62 Kg



45x20 Under Ridge
21,5 | 11,3 w 5,5 h

4 u./lm
0,90 Kg



Celler® 50x21 Eave Closure
27 | 9,7 w 11 h

Also compatible with Edges and Ridges from S-Interlocking roof tiles, page 46.

Dimensions in cm.
Check colours availability for accessories.

Curved Centenaria® Mediterrania® roof tile
FAMILY HOUSE (ALICANTE)

TECHNICAL INFORMATION CURVED 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.

	Celler® 50x21	Curved 45x20	Curved 40x19	Curved 40x15	Step Celler® 50x21
Size	500 mm x 210 mm / 170 mm	450 mm x 200 mm / 160 mm	408 mm x 180 mm / 140 mm	408 mm x 150 mm / 116 mm	500 mm x 205 mm / 165 mm
Weight	2,40 kg/unit	1,85 kg/unit	1,60 kg/unit	1,35 kg/unit	2,50 kg/unit
Units per sq. m.	18,0 tiles	25,0 tiles	30,0 tiles	33,0 tiles	10,0 tiles
Weight per sq. m.	43 Kg	46 Kg	48 Kg	45 Kg	25 Kg
Units per ml eave line	8,0 tiles	10,0 tiles	12,0 tiles	12,0 tiles	4,0 tiles
Units per 1m ridge / 1m edge	2,5 tiles	3,0 tiles	3,0 tiles	3,0 tiles	2,5 Tiles Celler 50x21
Roof Tiles per pallet	225 / 250 units - 200 units (Centenaria®)	275 / 550 units	312 / 360 / 624 / 720 units	364 / 728 units	160 units
Recommended support	Metallic or Treated wood Battens (*) Under-tile roof sheet	Under-tile roof sheet	Under-tile roof sheet	Under-tile roof sheet	Metallic or Treated wood Battens (*)
Dry installation using	Curved roof tile fixing clip	Curved roof tile fixing clip	Curved roof tile fixing clip	Curved roof tile fixing clip	Screws or nails (depending on the support)
Max.-min. overlap	190 mm - 80 mm	210 mm - 80 mm	170 mm - 80 mm	150 mm - 80 mm	170 mm - 80 mm

Approximate values: 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.
 (*) Ideal dry installation in for Celler® 50x21 and Step Celler® 50x21 roof tiles.

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, must take into account of the minimum slopes for installation and minimum overlap.

Pitch panel according to the geographical area and minimum overlap. (according to UNE - 136020)

Zone	Pitch	26%-15°	28%-16°	30%-17°	32%-18°	34%-19°	36%-20°	38%-21°	40%-22°	42%-23°	44%-24°	> 46%-25°
	Zone 1	Overlap	15	14	13,5	13	12,5	12	11,5	11	10	10
Zone 2	Pitch	26%-15°	28%-16°	30%-17°	32%-18°	34% 19°	36%-20°	38%-21°	40%-22°	42%-23°	44%-24°	> 46%-25°
	Overlap	X	15	14,5	14	13,5	13	12,5	12	11	10	7
Zone 3	Pitch	26%-15°	28%-16°	30%-17°	32%-18°	34% 19°	36%-20°	38%-21°	40%-22°	42%-23°	44%-24°	> 46%-25°
	Overlap	X	X	X	15	14,5	14	13,5	13	12	11	7

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

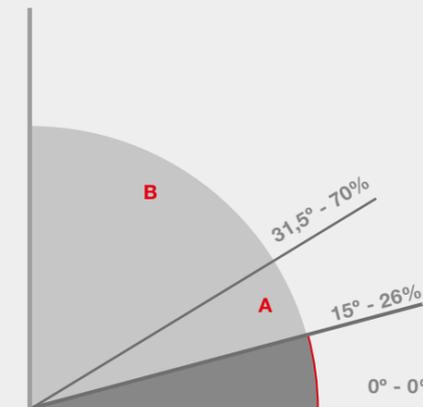
Roof tiles on the roof surface must be fixed to the support to a greater or lesser extent, depending on the pitch. In the case of singular points such as eave lines, edges, hip lines, valleys, joints and the ridge line, all roof tiles and accessories of these joints must be fixed to the battens.

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 26%-70% All roof tiles in pan and cover position must be fixed that form every 5 rows.

B > 70% All pans and covers should be fixed mechanically.



Less than 26% - Not recommended

Fitting system LEVEL A

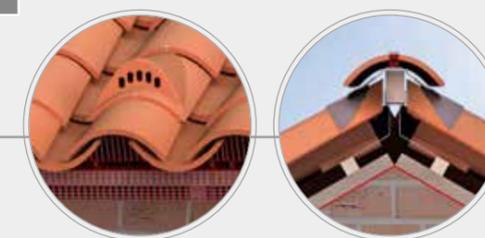
		ROWS																					
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
SPUN	6																						
	5																						
	4																						
	3																						
	2																						
	1																						
	0																						

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 surface. 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.

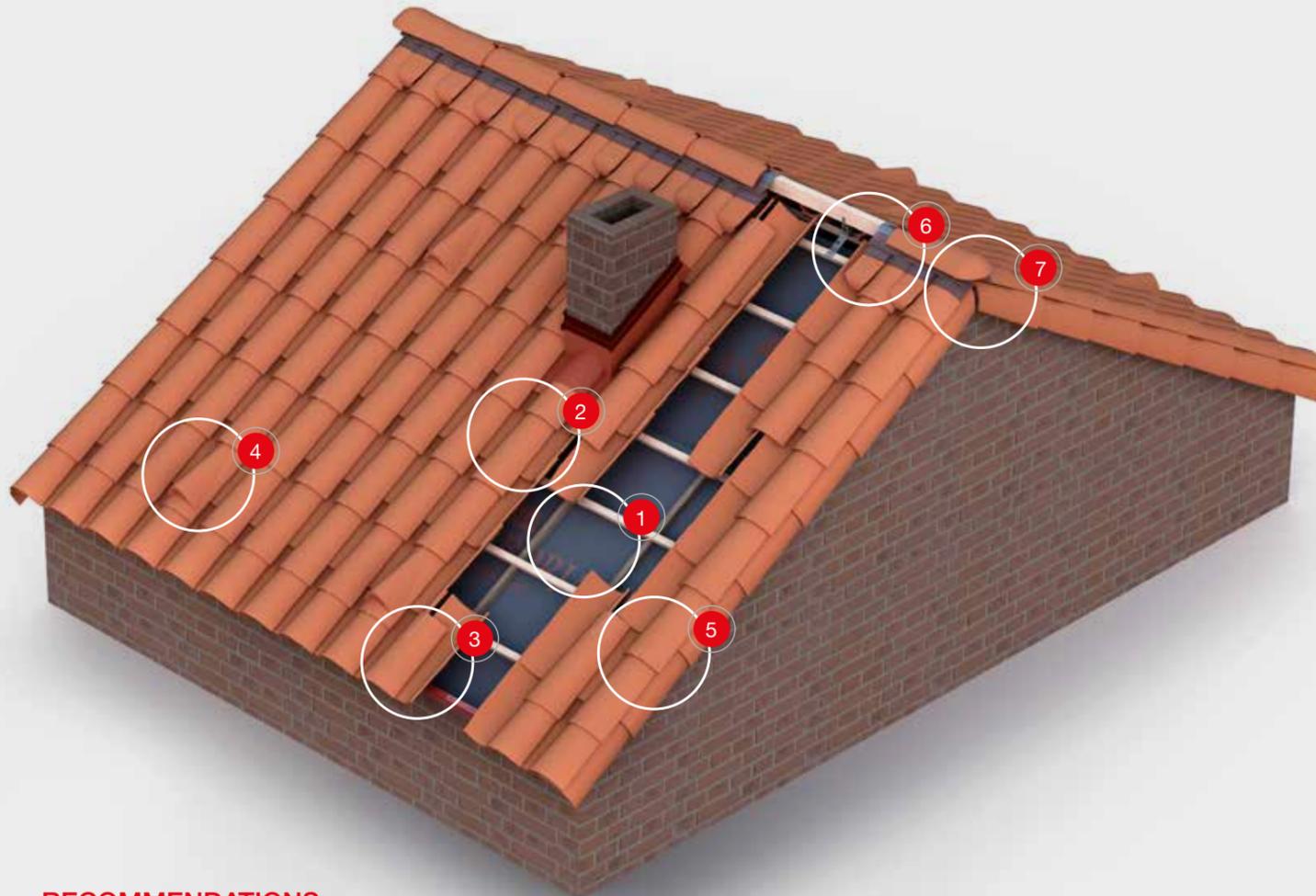


		ROWS								
		1	2	3	4	5	6	7	8	9
SPUN	7									
	6									
	5									
	4									
	3									
	2									
	1									

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

FITTINGS INSTRUCTIONS CURVED 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, Celler® 50x21 roof tiles should be installed using the Step Celler® 50x21 as a pan and should be fixed to a support previously prepared with a double batten layout. Curved roof tiles can also be dry installed on under-tile Corrugated bitumen sheet or Fiber cement sheets



Double batten layout structure. Battens of at least 3cm in height. Primary battens (L1) are installed perpendicular to the steepest slope 50-70 cm apart and equally spaced out along the length of the roof surface. Secondary battens (L2) are installed distributing the roof tiles according to their useful length. The useful length must be calculated on site and depends on the location and the pitch of the roof (see the Code of practice for installation of roofs with clay roofing tiles applicable in each zone of application). The second L2 depends on the (flight) of the eave line and the useful length of each tile.



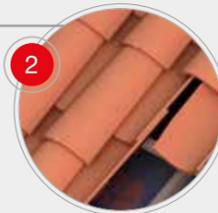
Structure with under-tile Corrugated bitumen sheet or Fiber cement sheets. Follow Guide for installation in force for these products.

Waterproof and breathing membrane



Curved roof tile fixing clip

For the dry installation of cover roof tiles, special clips should be used, so that the overlap remains constant on all rows of the roof surface. On steep slopes, it is also recommended that the joint also be secured with a spot of special foam for tiles.



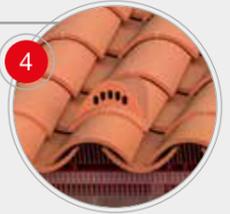
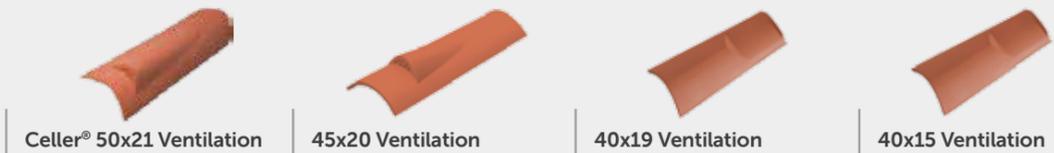
Curved roof tiles are installed starting with first row of tiles, ensuring that the distance between battens is constant and leaving a gap of 3-7cm for water to pass through on the pan roof tiles. The curved roof tiles should overhang more than 5cm. The overlap of the tiles should be determined according to the area and pitch of the roof.

Celler® 50x21 Eave Closure

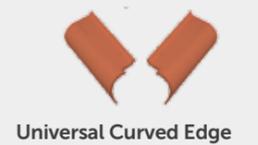
Bird stop grate

Eaves comb

Use ventilation roof tiles to increase the circulation of air underneath the tiles. Ventilation roof tiles are installed in accordance with the Code of practice for installation of roofs with clay roofing tiles.



Edges clay accessories are installed so that they are always underneath the covers that form each side, and in the same direction as the pan curved roof tile.



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 Under Ridge (clay accessory).



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.



Compatible with family of accessories of Circular Ridge and Cover + Ridge.



Hand Decorated EAVES

We decorate by hand using natural and arabesque symbols.
We create artisan pieces inspired by roofs from another time.

Useful length decorated according
to Curved roof tiles available.

Celler® 50x21 22 cm
Curved 40x19 20 cm
Curved 40x15 20 cm

