

New FORMATS



FLAT-5XL®

⊕ FLAT-10

⊞ TECHNICA-10

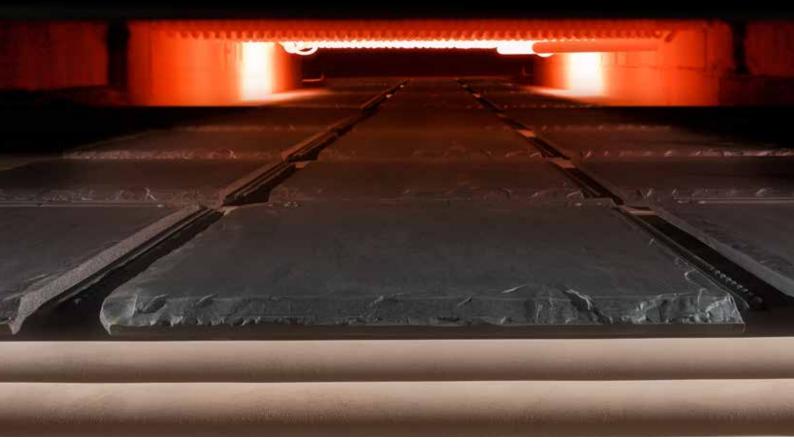
⊕TB-10 Tech

Another example of the innovation and technological development in ceramic roof tiles. The largest ceramic tile in the world.

A new generation of flat tiles now lighter and with greater definition. Suitable for roofs and façades. Innovative flat tile in a
Marseille style. Safer and
technologically up-todate. The most versatile
format on the market.
Ideal for all kinds of
projects.

Technological evolution in the large size S-interlocking roof tile format. Its perfect definition and finishing simulate curved roof tiles aesthetics.





The manufacturing process in a roller kiln combined with ceramic clays of very low water absorption, less than 3%, provide our tiles with a perfect flatness, in addition to the greater resistance to flexion.





The manufacturing process of Tejas Borja, with plaster molds and H cassettes, confers to our products a very perfect and detailed definition with greater clay compaction, a very low absorption and extremely strong.













Minimum Slope 35%



Longitudinal Overlap 45 mm



Flexural Strength

| Dimensions | 457 mm x 510 mm |
|--|--------------------------|
| Minimum pitch recommended | 35% - 19° (*) |
| Weight | 6,55 Kg./Unit |
| Units / sq. m. | 5,5 Units |
| Units per LM eave line | 2 Units |
| Useful width | 476 mm |
| Useful length (Batten distance) VARIABLE 50 mm | 340-385 mm |
| Pallet data | (G1) 152 Units / 990 Kg. |
| Minimum order | 2 Units |

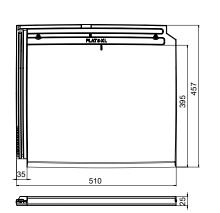






Approximate values: If the roof tiles are installed on battens, the useful length must be calculated on site. A tolerance of ± 2% is allowed on the dimensions of the roof tiles according to EN 1024.

(*) In zone 1 (protected area), arranged in staggered formation with waterproof laminate and batten distance of 340 mm on a skirt of up to 6.5 m. Check pitch pannel according to the roof length and the geographical area according to EN 136020.

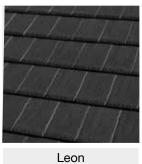


FLAT-5XL® / FINISHES



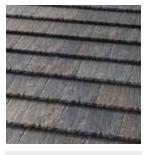














Nepal Orange

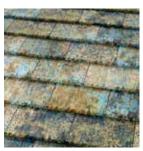
Paris Ocre

Tokyo Copper















Sidney Graphite

Denver Gold



Denver Iris



Ibiza Pink

Ceramic CEMENT





Roma Dark



reddot award 2019 winner



→ FLAT-10



Perfect, deep fit

Large format - 10 units per sq. m.

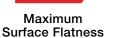
Exclusive BorjaJET finishes

Lightweight -



> Klinker







Minimum Slope 35%



Longitudinal Overlap 35 mm

| Dimensions | 475 mm x 285 mm |
|--|--|
| Minimum pitch recommended | 35% - 19° (*) |
| Weight | 3,5 Kg./Unit |
| Units / sq. m. | 9,9 Units |
| Units per LM eave line | 4 Units |
| Useful width | 250 mm |
| Useful length (Batten distance) VARIABLE | 365-400 mm |
| Pallet data | (T1) 240 Units / 850 Kg. (T2) 320 Units / 1.130 Kg. |
| Minimum order | 5 Units |





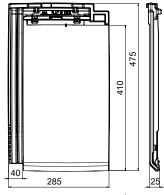






Approximate values: If the roof tiles are installed on battens, the useful length must be calculated on site. A tolerance of $\pm\,2\%$ is allowed on the dimensions of the roof tiles according to EN 1024.

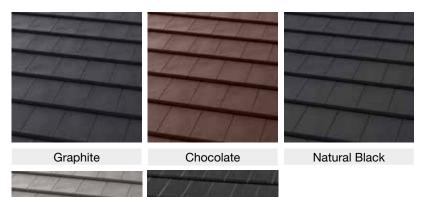
The certified characteristics for the Terracotta tiles are: Structural faults, the geometric characteristics, resistance to flexural strength , impermeability, frost resistance for all products made with red clay. AFNOR Certification / 11 rue Francis de Pressensé / 93571 LA PLAINE / SAINT-DENIS CEDEX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





H FLAT-10 / FINISHES

PLAIN COLOUR



Leon





Sidney Graphite



Mid Grey

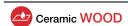


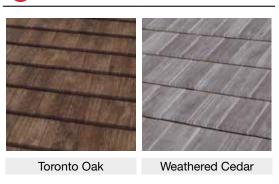




Ibiza Pink

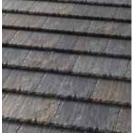
Ceramic COTTO





Ceramic SLATE





Nepal Orange

Paris Ocre



H TECHNICA-10



| Dimensions | 475 mm x 262 mm |
|--|--|
| Minimum pitch recommended | 35% - 19° (*) |
| Weight | 3,15 Kg./Unit |
| Units / sq. m. | 10,7 Units |
| Units per LM eave line | 4,5 Units |
| Useful width | 218 mm |
| Useful length (Batten distance) VARIABLE | 370-410 mm |
| Pallet data | (TB) 320 Units / 1.070 Kg. (TC) 240 Units / 805 Kg. |
| Minimum order | 5 Units |





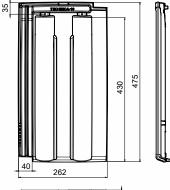




Approximate values: If the roof tiles are installed on battens, the useful length must be calculated on site. A tolerance of $\pm~2\%$ is allowed on the dimensions of the roof tiles according to EN 1024.

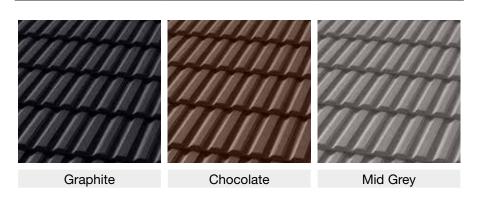
The certified characteristics for the NT Terracotta tiles are: Structural faults, the geometric characteristics, resistance to flexural strength, impermeability, frost resistance for all products made with red clay. AFNOR Certification / 11 rue Francis de Pressensé / 93571 LA PLAINE / SAINT-DENIS CEDEX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

(*) In zone 1 (protected area), arranged in staggered formation with waterproof laminate and batten distance of 365 mm on a skirt of up to 6.5 m. Check pitch pannel according to the roof length and the geographical area according to EN 136020.



H TECHNICA-10 / FINISHES

PLAIN COLOUR



NATURE





FLAT ROOF TILES



Max. Slope. 62%-31.5°



Angular Hip Starter 42,2 x 30,5 x 10 cm. 2,83 kg.



Angular 3 Ways 45,2 x 29,3 x 10 cm. 4,37 kg.



Angular 4 Ways 46 x 41,5 x 16,5 cm. 6,50 Kg.



Straight End Cap 8,5 x 28,5 x 12,5 cm. 2,65 kg.



100° Low Ridge 47,5 x 25 x 10,5 cm. 2,22 Units/lm/ 4,00 kg. Max. Slope. 60%-31°



100° Low Hip Starter 37 x 25 x 10,5 cm. 2,70 kg.



100° Angular 3 Ways 40 x 45 x 22 cm. 5,15 kg.



100° Angular 4 Ways 46,5 x 46,5 x 16 cm. 7,50 Kg.



10

100° High Straight End Cap 27,5 x 28 x 7 cm. 2,1 kg.



Left FLAT-5XL® Straight Edges 47,5 x 15,5 x 8 cm. 2,85 kg.



Left Straight Edges 45,5 x 8 x 15 cm. 2,20 kg.



Right Straight Edges 47,5 x 15,5 x 11,5 cm. 3,15 kg.



Flat Straight Edges (Left/Right) 40,4 x 12,4 x 12,4 / 2,6 cm. 3 Units/lm/ 2,50 kg.



Angular Edge 43 x 14,5 x 14,5 cm. 2,5 Units/lm/ 2,85 kg. (on monopitch)



Ventilation Cap 24,5 Øext - 22 Øint x 6 cm. 1,70 kg.



Chimney d.140 22,5 Øext - 20 Øint x 23,5 cm. 2,35 kg.

FLAT-5XL®



FLAT-5XL® Chimney Carrier 45,7 x 27,2 x 16 cm. 17 Øext - 13 Øint 3,75 kg.



Half FLAT-5XL® Roof Tile 45,7 x 27,2 x 2,4 cm. 3,5 kg.



FLAT-10 Chimney Carrier 47,5 x 28,5 x 10,5 cm. 18 Øext - 13,5 Øint 4,5 kg.

TECHNICA-10 Chimney Carrier 17 Øext - 13 Øint 47,3 x 26,2 x 10,5 cm. / 3,7

kg.



← FLAT-10

Half FLAT-10 Roof Tile 47,5 x 16,6 x 2,6 cm. 2 kg.



FLAT-10 Ventilation 47,5 x 28,5 x 3,7 cm. 3,5 kg.



FLAT-5XL® Ventilation 45,7 x 27,2 x 5 cm. 3,5 kg.

A tolerance of \pm 2% is allowed on the dimensions of the roof tiles according to EN 1024. Dimensions in centimeters. Check finishing colours for different accessories.

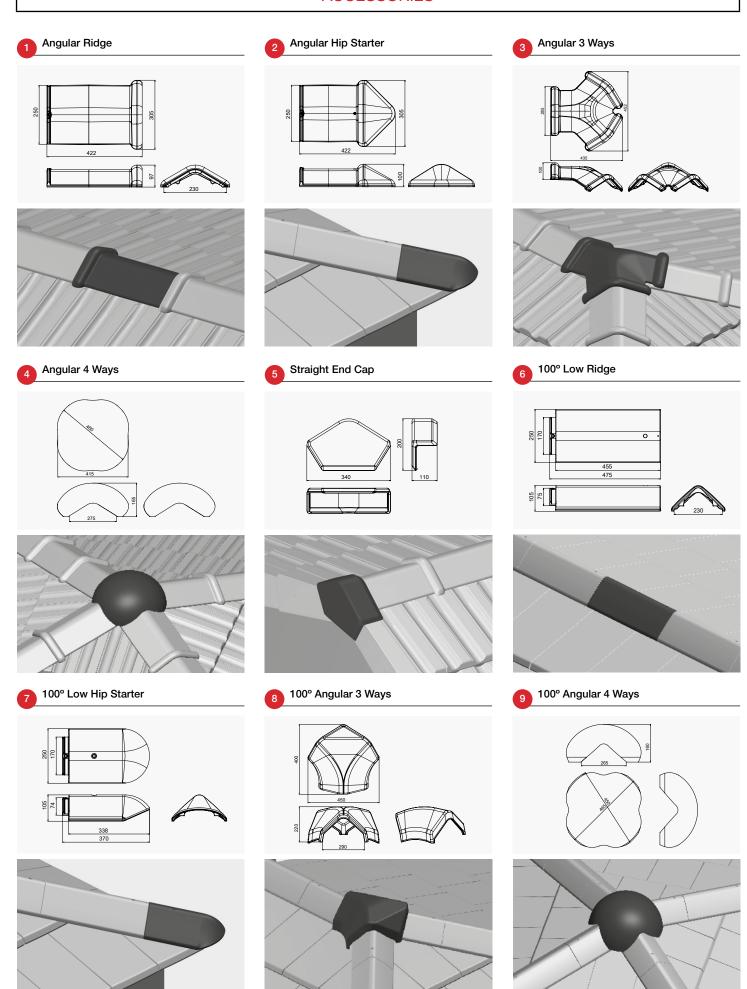
(H) TECHNICA-10



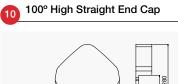
Half TECHNICA-10 Roof Tile 47,5 x 15,5 x 2,6 cm. 2 kg.

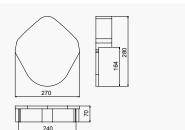


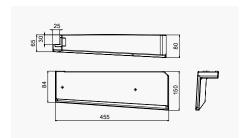
TECHNICA-10 Ventilation 47,5 x 26,2 x 10,5 cm. 3,4 kg.



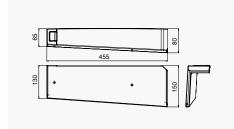
FLAT-5XL® Left Straight Edges

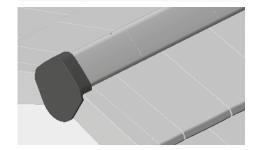


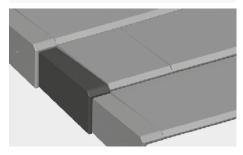


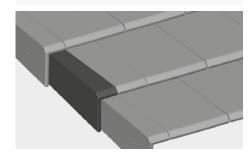


Left Straight Edges

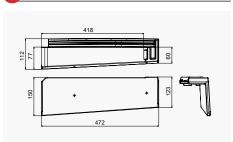




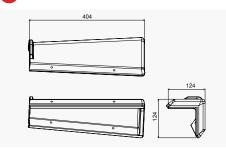




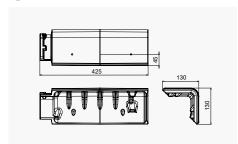


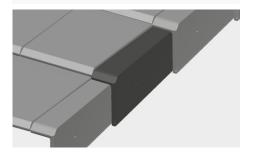


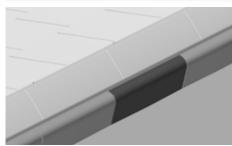




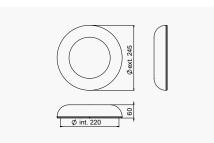
Angular Edge

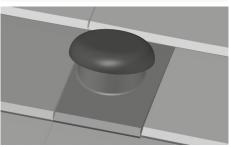




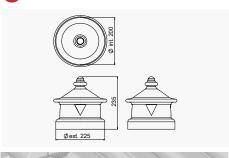


Ventilation Cap

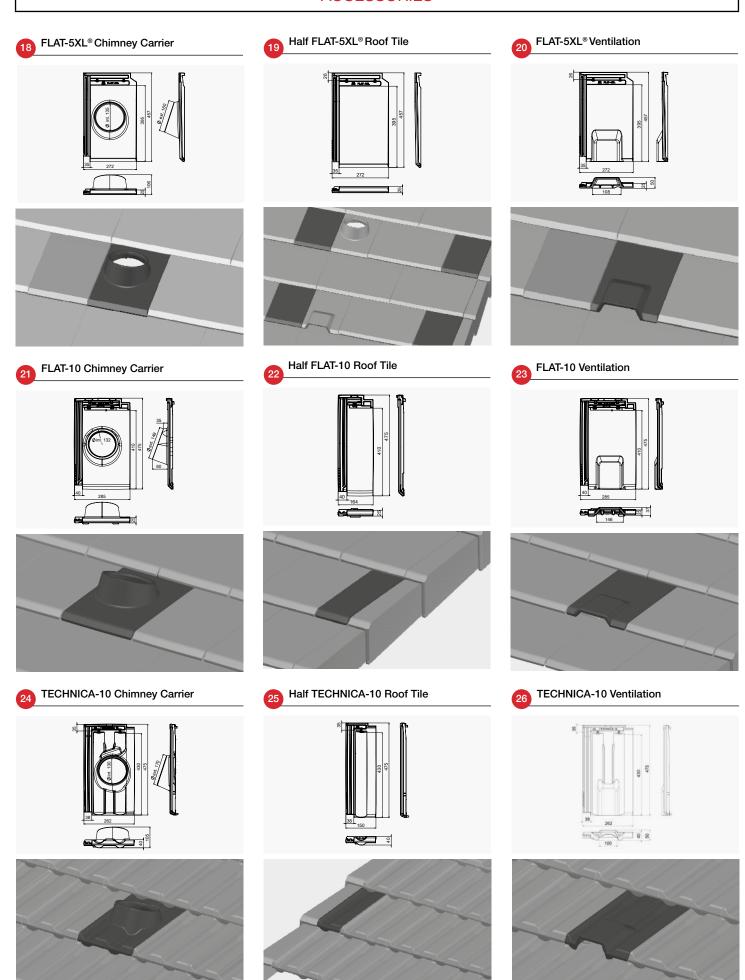




Chimney d.140







FLAT ROOF TILES INSTALLATION

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 |
|-----------|----------------------------|-----------------------------|----------------------------|
| Protected | 42% - 22,5° | 50% - 26,5° | 55% - 29° |
| Normal | 50% - 26,5° | 55% - 29° | 65% - 33% |
| Exposed | 65% - 33% | 75% - 37° | 85% - 40,5° |

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.

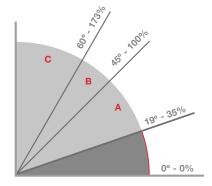
We recommend that all roof tiles that form the perimeter of each skirt be fixed mechanically.

| Detten time. | Metallic | |
|-------------------|--|--|
| Batten type: | Treated wood | |
| Dry installation: | Self-drilling stainless screws or nails (depending on the support) | |
| | Other clips and brakets available (upon enquire) | |

A 35% - 100% The roof tiles will rest on battens, since they are provided with nib support.

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.

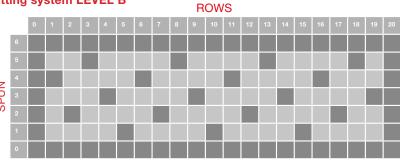
C > 173% In areas with strong winds, exposed areas or areas with basic seismic acceleration of > 0.12g, all roof tiles should be fixed mechanically to the battens.



Less than 35% - Será necesaria la impermeabilización de toda la superficie del soporte.

Fitting system LEVEL B

B 100%-173%



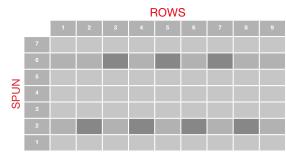
Installation must comply with the technical standards applicable in each territory Code of practice for design and fixing of roofs with clay roofing tiles and Tejas Borja specifications.

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.

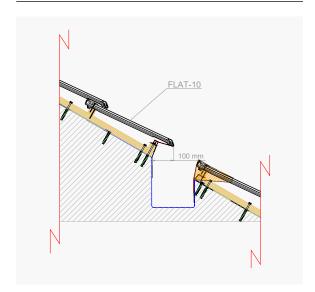
Ventilation roof tiles will also be installed in a uniform manner across the surface of the roof. In case of dry installation, it is recommended that at least 1 ventilation roof tile be used every 10 sq.m. and 4 ventilation roof tiles per the roof surface.



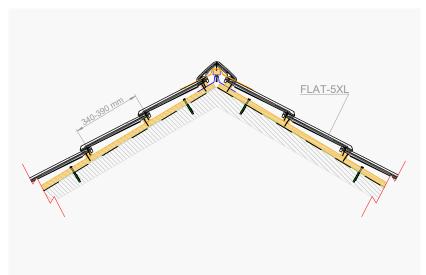
Example case of distribution of ventilation roof tiles on a 7m x 9m rectangular roof surface (63 sq. m.)

FLAT-5XL® ROOF TILES INSTALLATION

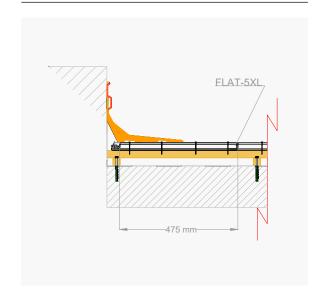
CANAL OCULTO



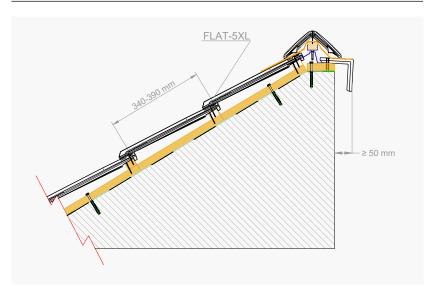
CUMBRERA



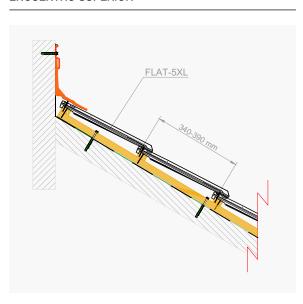
REMATE LATERAL

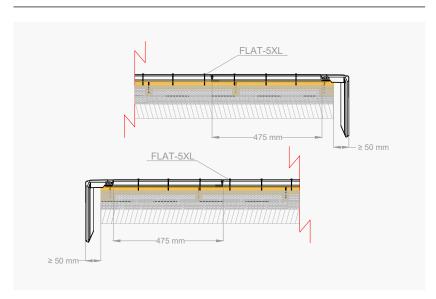


MONOPENDIENTE



ENCUENTRO SUPERIOR



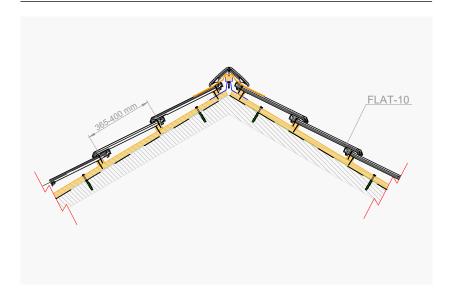


FLAT-10 ROOF TILES INSTALLATION

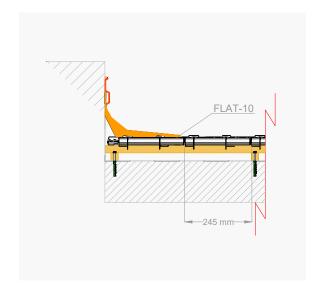
CANAL OCULTO

FLAT-10

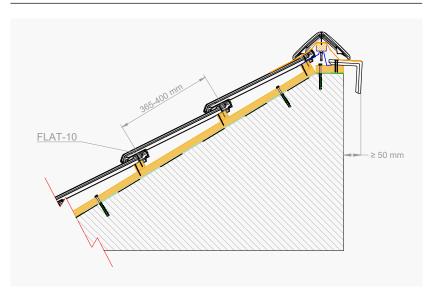
CUMBRERA



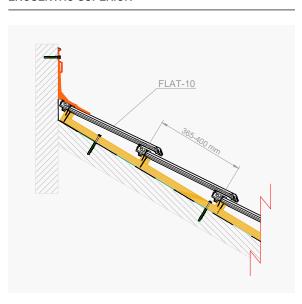
REMATE LATERAL

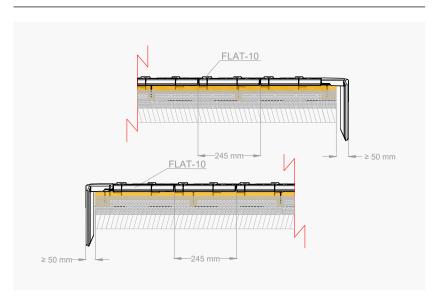


MONOPENDIENTE



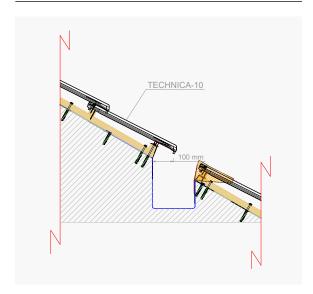
ENCUENTRO SUPERIOR





TECHNICA-10 ROOF TILES INSTALLATION

CANAL OCULTO



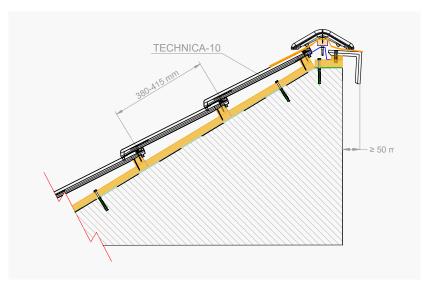
CUMBRERA



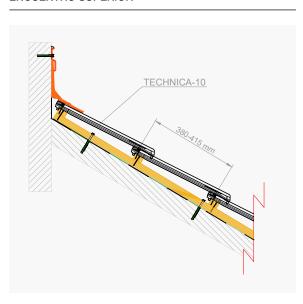
REMATE LATERAL

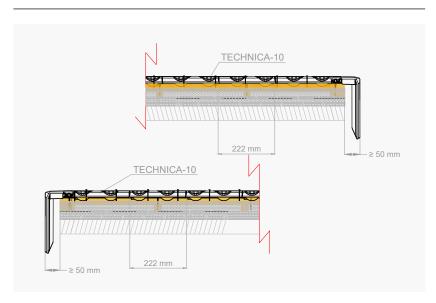


MONOPENDIENTE



ENCUENTRO SUPERIOR













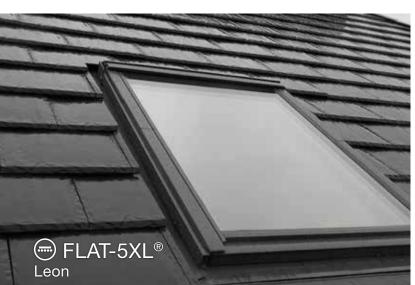
























H TB-10 Tech



| Dimensions | 475 mm x 282 mm |
|--|--|
| Minimum pitch recommended | 30% - 17° (*) |
| Weight | 3,45 Kg./Unit |
| Units / sq. m. | 10,4 Units |
| Units per LM eave line | 4,25-4,54 Units |
| Useful width | 235-220 mm |
| Useful length (Batten distance) VARIABLE | 390-410 mm |
| Pallet data T7 - Stardard T8 - Exclusive container | (T7) 210 Units / 720 Kg. (T8) 140 Units / 480 Kg. |
| Minimum order | 5 Units |

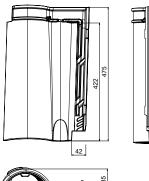


Approximate values: If the roof tiles are installed on battens, the useful length must be calculated on site. A tolerance of $\pm 2\%$ is allowed on the dimensions of the roof tiles according to EN 1024.

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

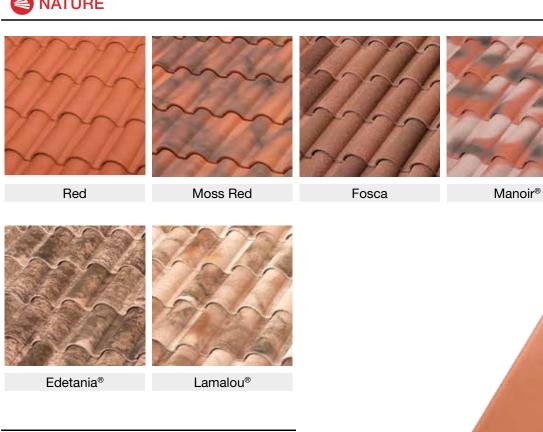
Type: Double lateral overlapping and double Lengthinal overlapping. Installation must comply with Code of practice for the design and fixing of roofs with clay roofing tiles for the region and Tejas Borja specifications.

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



→ TB-10 Tech - FINISHES



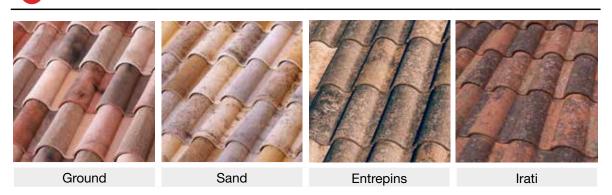


PLAIN COLOUR

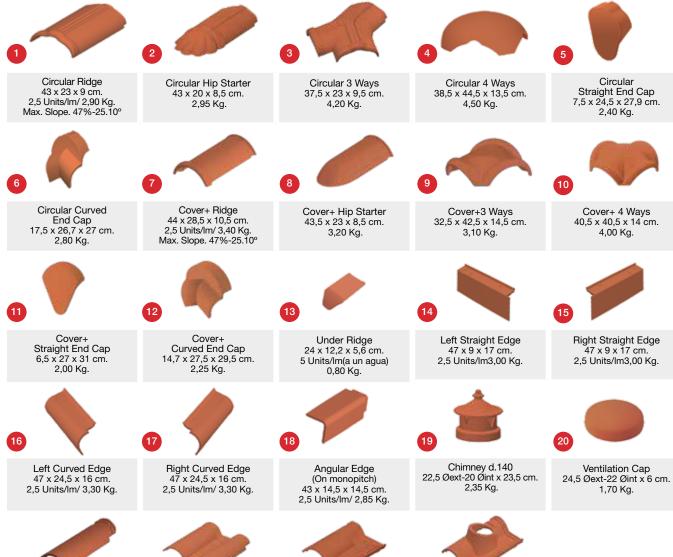




CENTENARIA®



TEJAS MIXTAS





21



TB-10 Tech Tile and a Half 47,5 x 40 x 7,5 cm. 5,40 Kg.

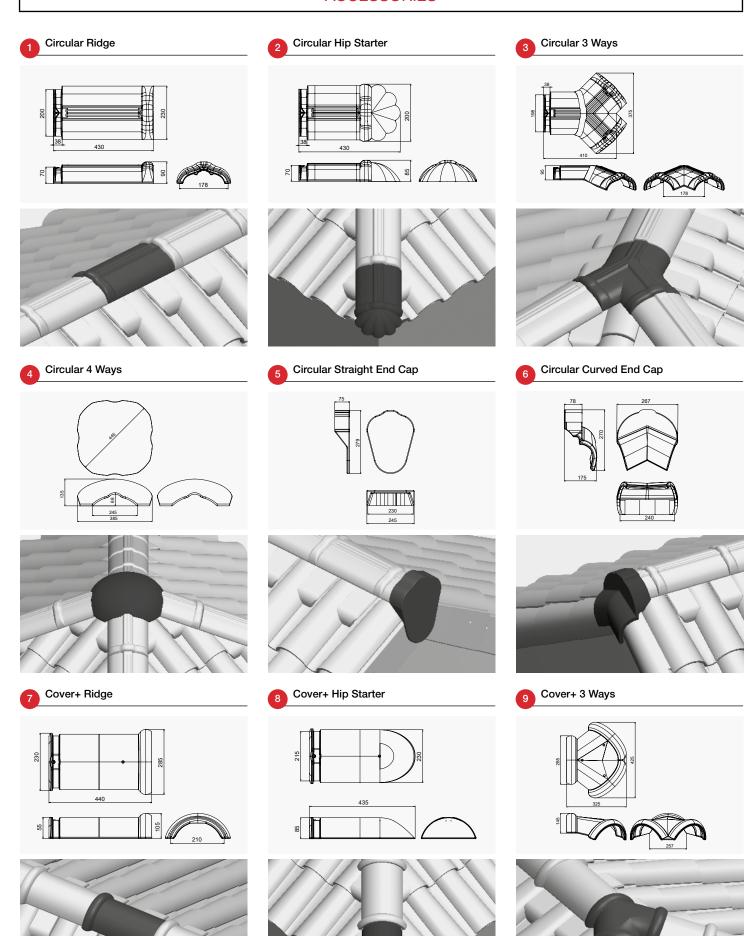


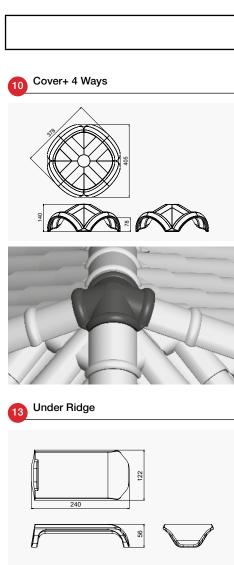
TB-10 Tech Ventilation 47,4 x 28,2 x 7,5 cm. 3,6 Kg.



TB-10 Tech Chimney Carrier 47,5 x 28,2 x 18 cm. 20 Øext-14 Øint / 4,6 Kg.

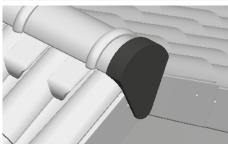


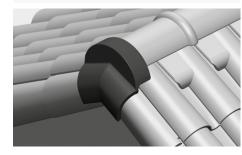








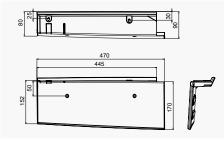


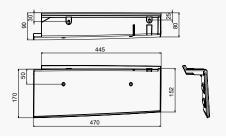




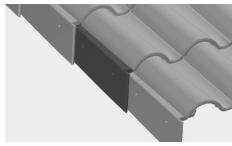


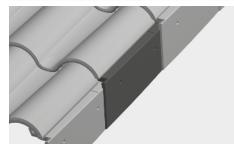
Right Straight Edge







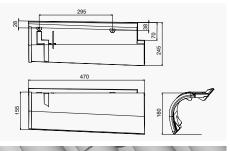


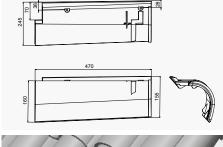


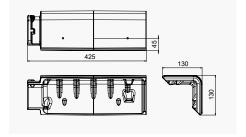
Left Curved Edge

Right Curved Edge

Angular Edge (On monopitch)

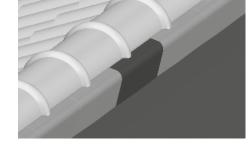


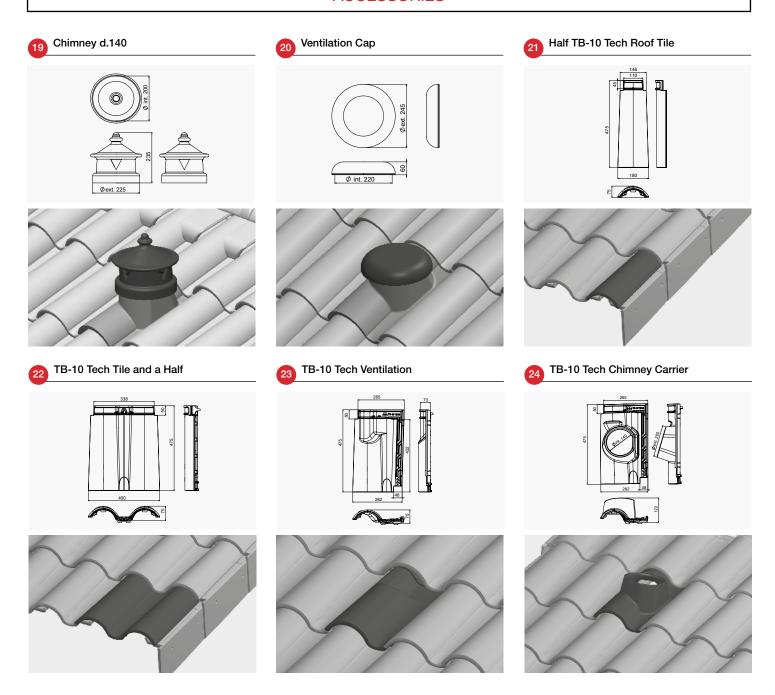












S-INTERLOCKING ROOF TILES INSTALLATION

ROOF SLOPES

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 |

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.

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.

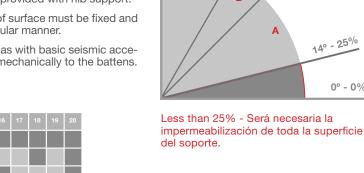
| Dotton tunos | Metallic |
|-------------------|--|
| Batten type: | Treated wood |
| Dry installation: | Self-drilling stainless screws or nails (depending on the support) |

A 25% - 100% The roof tiles will rest on battens, since they are provided with nib support.

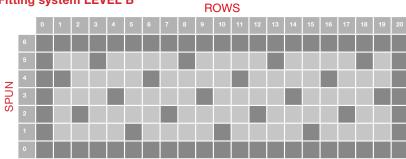
B 100%-173% All the roof tiles around the perimeter of each roof surface must be fixed and

at least one in every five should be fixed in a regular manner.

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.



С



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.

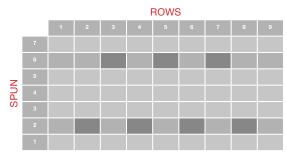
140 - 25%

0° - 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. 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.)

C > 173%

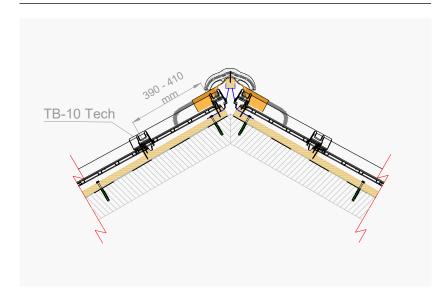
Fitting system LEVEL B

TB-10 Tech ROOF TILES INSTALLATION

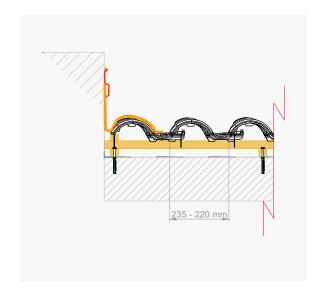
CANAL OCULTO

TB-10 Tech

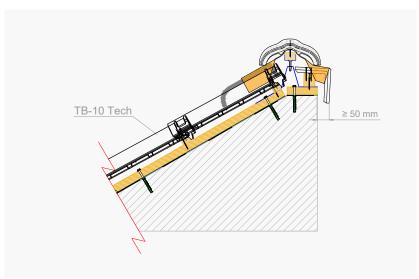
CUMBRERA



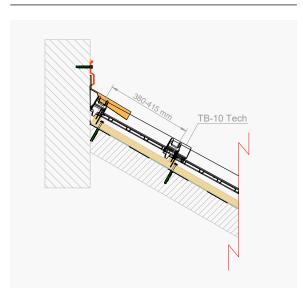
REMATE LATERAL

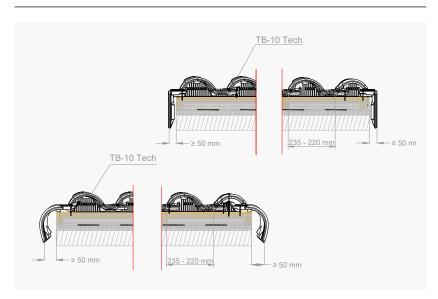


MONOPENDIENTE



ENCUENTRO SUPERIOR





















ROOF COMPONENTS



BORJATHERM Panel



Multi-Use PREMIUM



Counter Flashing Profile



Ventilated Batten 30x20



Waterproof and Breathing Membrane TB 180 Premium



Roofing Adhesive Tape 50 mm



Nail Sealing Tape



Ridge Batten Adjustable Support 40 mm



Fixtin Clip for Flat Tiles



Fixtin Clip for Interlocking Tile



Universal Ridge Clip



Straight Snow Stopper



Screws (different types available)



Batten + Ventilation Comb

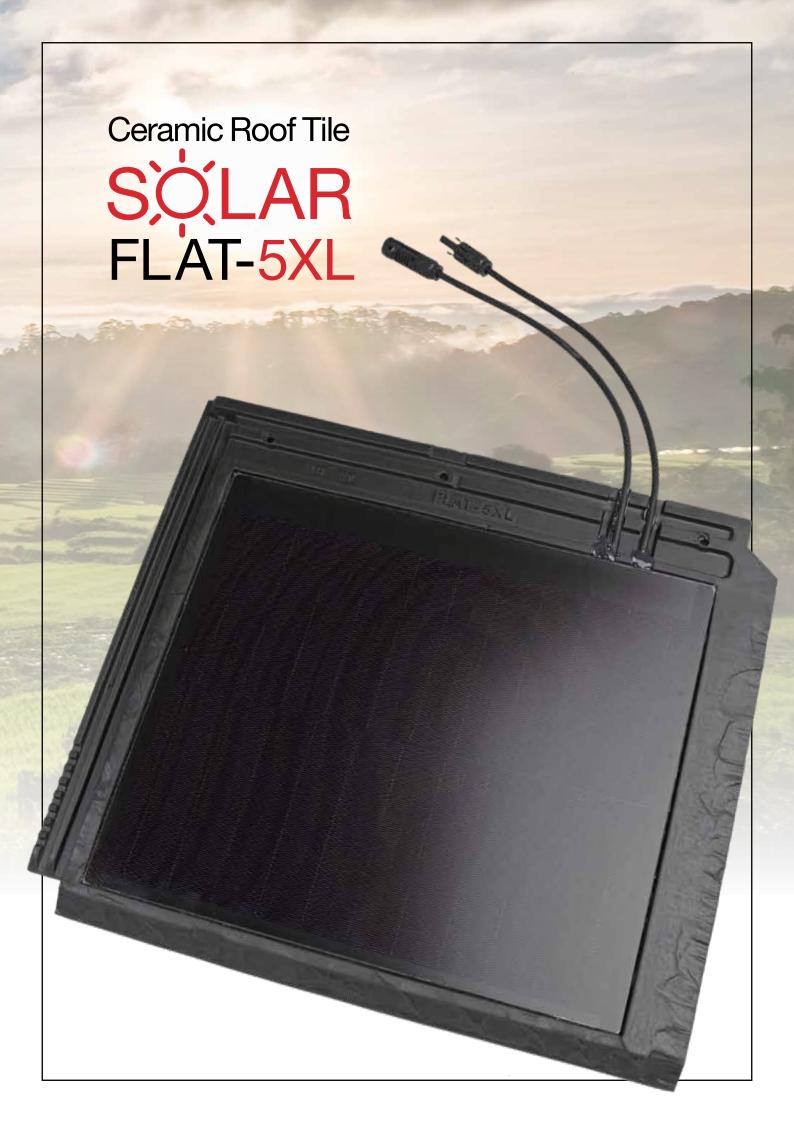


TB-ROLL Ridge Tape



Paint

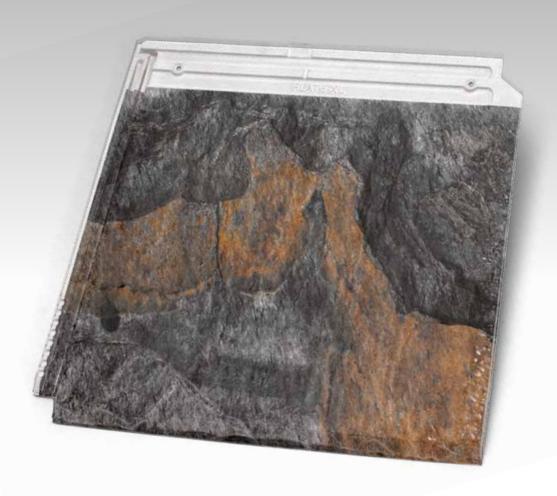


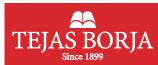


FLAT-5XL® BorjaJET



reddot award 2019 winner





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