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TEJAS BORJA **THE CATALOGUE**



**TEJAS BORJA**
Unique since 1899

Francisco Ramón Borja

Awarded the Internationalisation prize by the Valencia Chamber of Commerce, Tejas Borja is recognised for its expansion over the last 20 years, and now boasts a presence in the markets of more than 65 countries world wide.



Awarded the 2012 "Alfa de Oro" for innovation by the Spanish Ceramic and Glass Association, the system **SKIN-KER®**, offers a unique installation system with large format porcelain tiles to create ventilated roofs and facades, permitting high quality, elegant and complete coverage of the building.



Granted FIRST PRIZE in the HISPALYT ARCHITECTURE AWARD 2013 for the Restoration of Reales Atarazanas in Barcelona.

 **HISPALYT**
CERÁMICA PARA CONSTRUIR

Tejas Borja catalogue

We constantly receive questions about roofs. With the release of this catalogue, we intend to anticipate to each of these issues.

To do this, we have made a simple, clear and with a very defined structure catalogue:

- In the first part, we speak about the three most important strengths of **Tejas Borja**: Being a family business with over 114 years of experience, specialized in roof tiles and their internationalisation.
- In the second part, the different profiles of roof tiles with their advantages, colours and accessories are detailed.
- The third part includes a section devoted to the restoration and customized products.
- Finally, we have included the most technical part in a synthesized form. Our intention is that this catalogue will be useful for you, since it is the result from your advices and comments, which have been highly appreciated and taken into account.

We hope this new edition of our catalogue will be even more useful than the previous ones.

- 1 THE COMPANY
- 2 ROOF TILES
- 3 RESTORATION
- 4 ROOF QUALITY

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roof tiles

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CATALOGUE

TEJAS BORJA THE COMPANY

Since 1899

The difference

Internationalisation

- 1 THE COMPANY
- 2 ROOF TILES
- 3 RESTORATION
- 4 ROOF QUALITY

SINCE **1899**

Tejas Borja is a Family Business, currently managed by the fifth generation, and has over **114 years** of experience. The family, from the outset, has considered that the most important in a company is seriousness and honesty, both personally and in the business, and has always understood that the key of success was in these values.

Here's how the company's philosophy was forged:
Providing products with the highest quality.



THE DIFFERENCE

The success of the industrial project of **Tejas Borja** is based on its ability to stand out from other manufacturers, not limited only to manufacture and sell. **Tejas Borja** has always directed its attention to the professionals specialized in roofs who are those who know best what to do, how and why. **Tejas Borja** strategic decisions have always taken into account the needs of these professionals.

The difference of Tejas Borja:
its professional team specialized in roof tiles.



All departments within the organization of **Tejas Borja** (Raw Materials, Production, Quality , Design , Management, Customer Service , Sales , etc.) are composed by professional people specialized in roof tiles with a great knowledge on the product and with the aim of meeting the expectations of the professionals of the sector, both stockists and importers, installers, builders, architects, etc. That's how we work in **Tejas Borja**!

INTERNATIONALISATION

The specialization strategy in the production of ceramic roof tiles along with its export orientation has allowed to access to a global market, therefore today **Tejas Borja** is worldwide recognized.

One of the pillars on which **Tejas Borja** internationalization is based, has been the capability to become a long-term partner for its customers, strengthening relationships over time and always providing the best

product quality and the finest service, having thus achieved in 2012 , that **40 %** of exported ceramic roof tiles from Spain are produced by **Tejas Borja**.

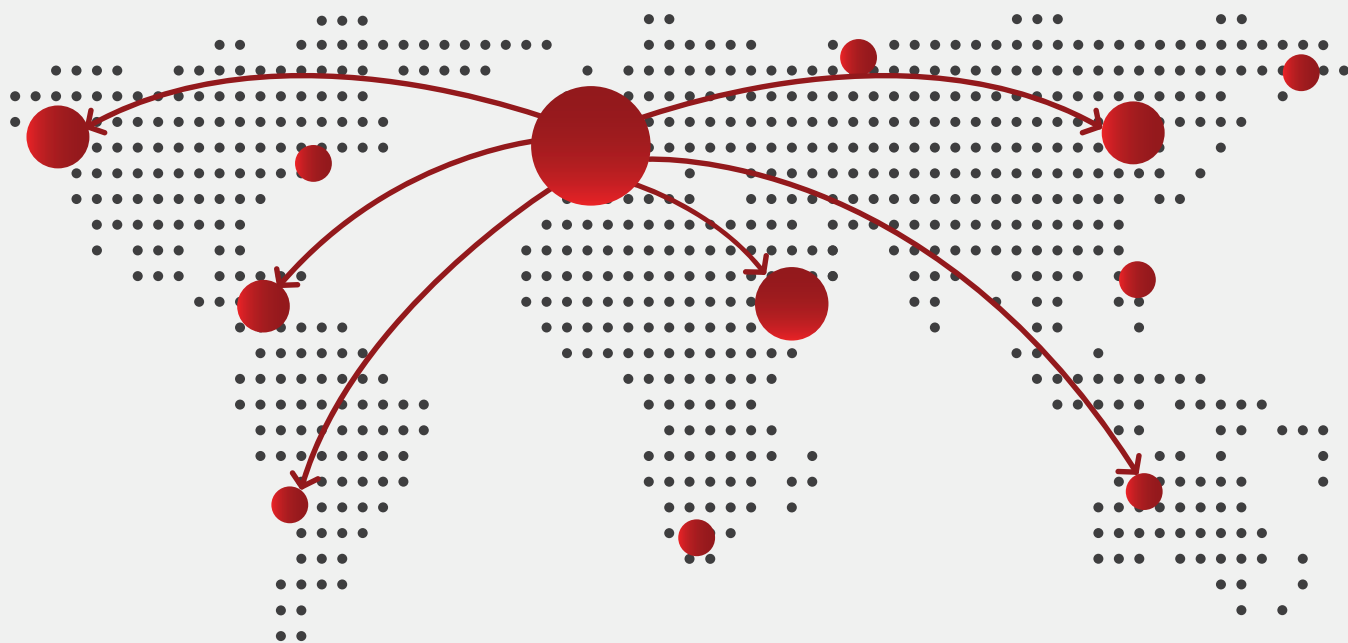
40%

of exported ceramic roof tiles from Spain are produced by Tejas Borja



Adapting their products to the characteristics and requirements of the different markets, and thus, fulfilling the specific regulations of each country, has been one of its strengths in the global market.

Export



More than **65** to which **Tejas Borja** exports its products.

CATALOGUE

TEJAS BORJA ROOF TILES

Breakdown

Flat 10

Flat 12

TB-4 Quattro®

TB-12®

TB-10

T-Ecol 11

Plana Alicantina

Curved roof tiles

25x12 Curved roof tile

Escama

Accessories

Centenaria®

BORJAdecor

I+D+i : SKIN-KER®

- 1 THE COMPANY
- 2 ROOF TILES
- 3 RESTORATION
- 4 ROOF QUALITY

Breakdown

Flat 10



EXTREM-KER®



Leon

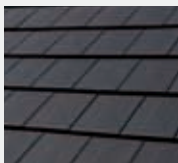
Flat 12



EXTREM-KER®



Asturias Brown



Lugo Slate



Navarra Grey

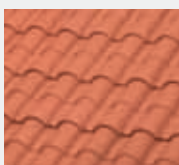


Galicia Grey

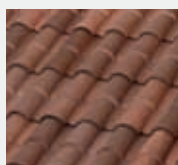
TB-4 Quattro®



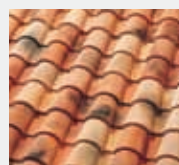
NATURE



Red



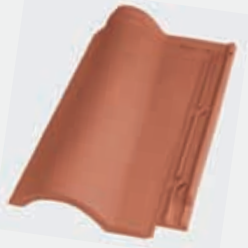
Fosca



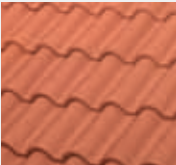
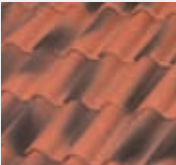


Vilattera®

Breakdown


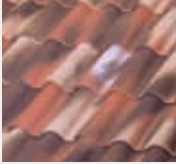

TB-12®





NATURE

			
Red	Aged Red	Vilavella®	Rosarena®


NATURE

		
Lamalou®	Bidasoa®	Brown

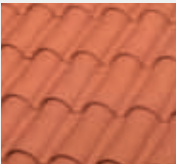



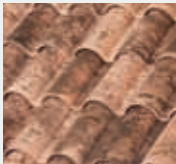

CENTENARIA®

	
Ground	Mediterrania®



TB-10




NATURE

					
Red	Fosca	Manoir®	Vilavella®	Edetania®	Lamalou®



CENTENARIA®

	
Ground	Sand

T-Ecol 11



NATURE

	
Red	Aged Red

Breakdown

Plana Alicantina



NATURE



Red



Fosca



Litoral

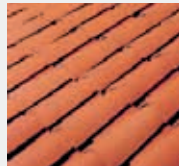


Nortegna

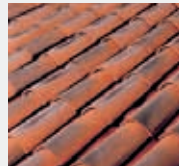
40x19 Curved roof tile



NATURE



Red



Aged Red

CENTENARIA®



Mediterrania®

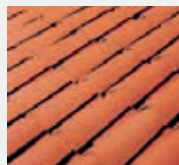


Sand

40x15 Curved roof tile



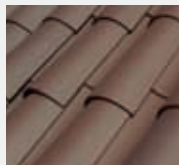
NATURE



Red



Aged Red



Brown


CENTENARIA®









Ground (no texture)

Breakdown

Celler® 50x21 curved roof tile




NATURE




Red Fosca Manoir® Vilavella® Edetania® Lamalou®

NATURE




Brown

CENTENARIA®

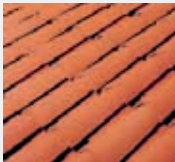




Ground Mediterrania® Sand

45x20 Curved roof tile




NATURE




Red

NATURE




Aged Moss

25x12 Curved roof tile




NATURE




Red

NATURE

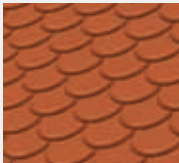


Vilavella®

Escama



NATURE



Red

FLAT 10

Find out more by reading the QR code.



Description	Main Features	
<p>The Flat 10 is the format of plain roof tile that belongs to the range of EXTREM -KER® products, technical perfection achieved throughout a firing process in a roller kiln.</p>	<p>Length: 45.1 cm Width: 28.7 cm Weight: 3.70 Kg Units / sq. m.: 10 to 11 uts Useful length VARIABLE: from 35 to 38 cm</p> <p><small>Approximate values: it will be necessary to determine the useful length on site. < 42% batten distance 35.0 cm (11 units/sq.m.) – waterproof layer ≥ 42% batten distance 38 cm. (10 units/sq.m.) – waterproof and breathing layer to prevent condensations.</small></p>	

Key advantages

EXTREM-KER®

Water absorption: <3%
High Strength
Flatness: Maximum

1

High Stability supported by a continuous nib.

2

Maximum batten pitch's play of 35 to 38 cm.

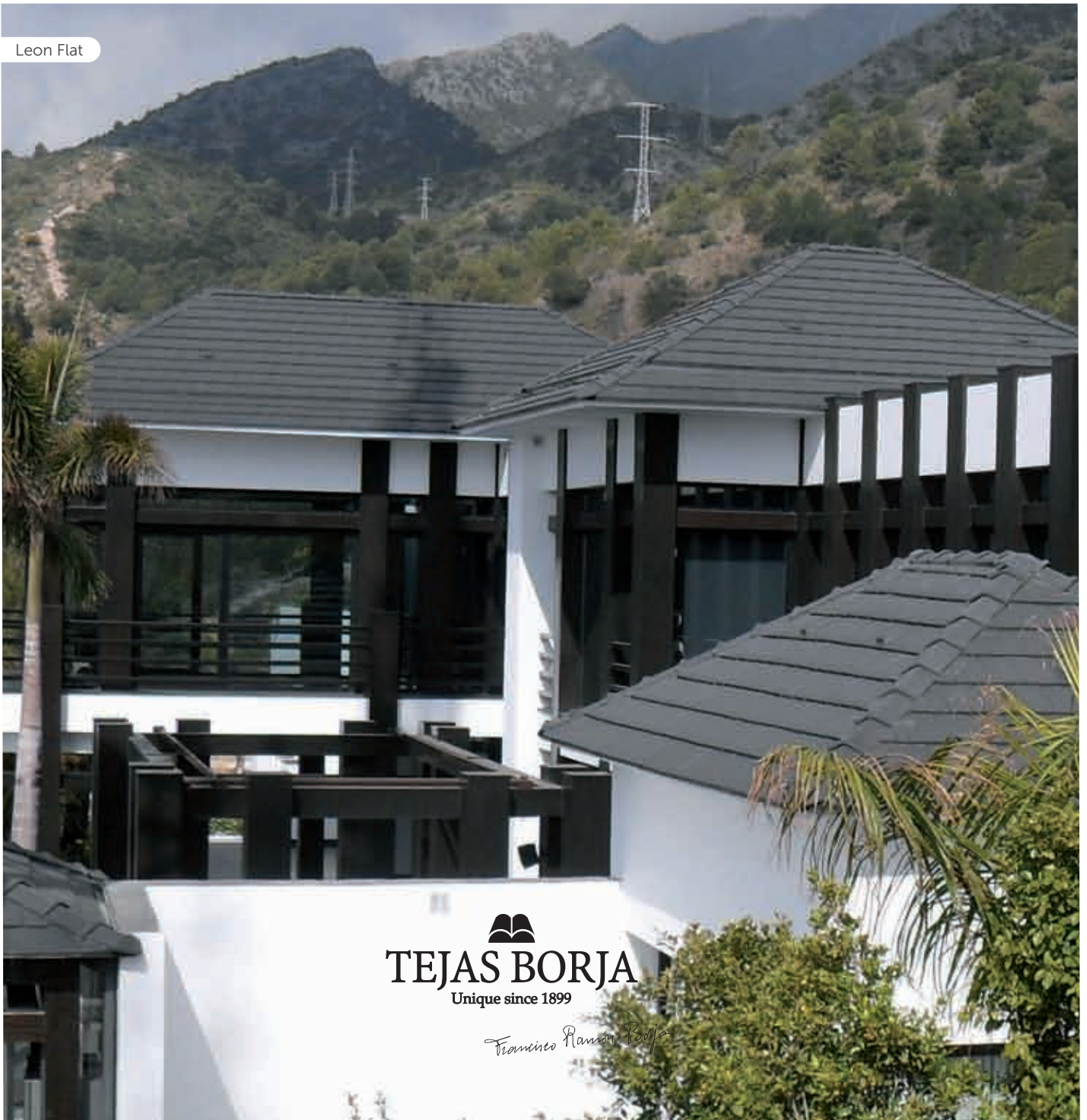
3


Staggered installation or continuous.

4

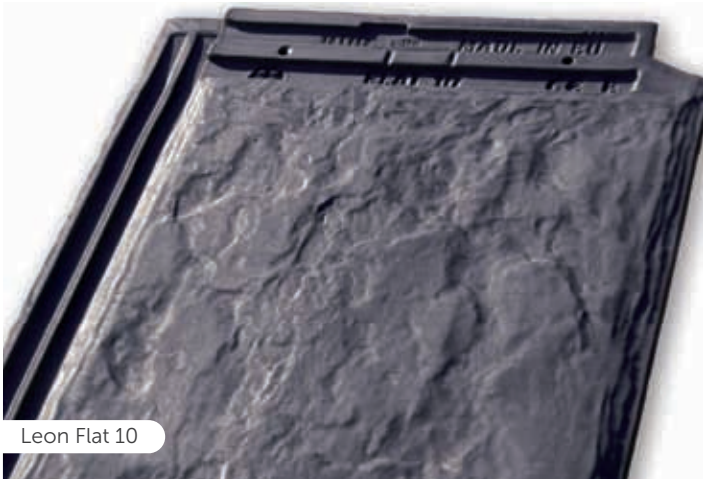
Technical Characteristics	Standard application	Minimum values AENOR	
Structural Characteristics Geometric properties Impermeability (cm ³ /cm ² /day) Mechanical strength (N) Frost resistance (N° cycles)	UNE EN 1304 UNE EN 1024 UNE EN 539-1 (method 1 class 1) UNE EN 538 UNE EN 539-2 (method E)	≤ 2.5 ± 2.0 ≤ 0.5 ≥ 900 ≥ 150	✓ ✓ ✓ ✓ ✓

Leon Flat




TEJAS BORJA
Unique since 1899

Francisco Ramón Borja

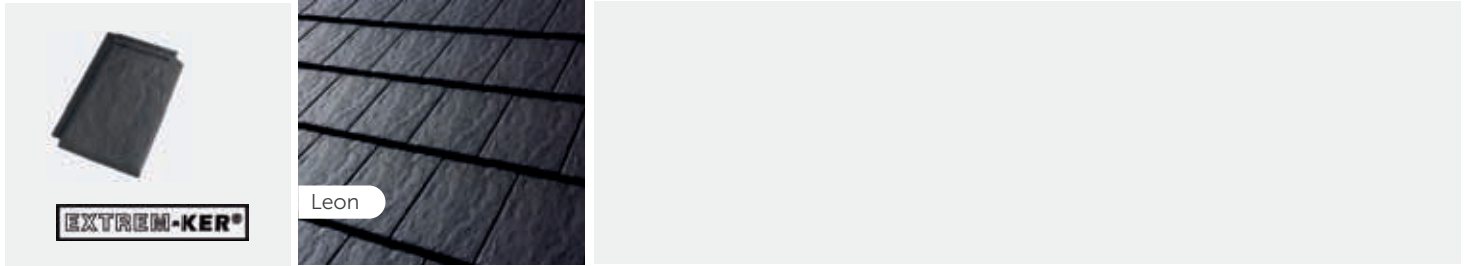


Leon Flat 10



Leon Flat

Flat 10 colours







Flat 10 accessories

Dimensions in cm

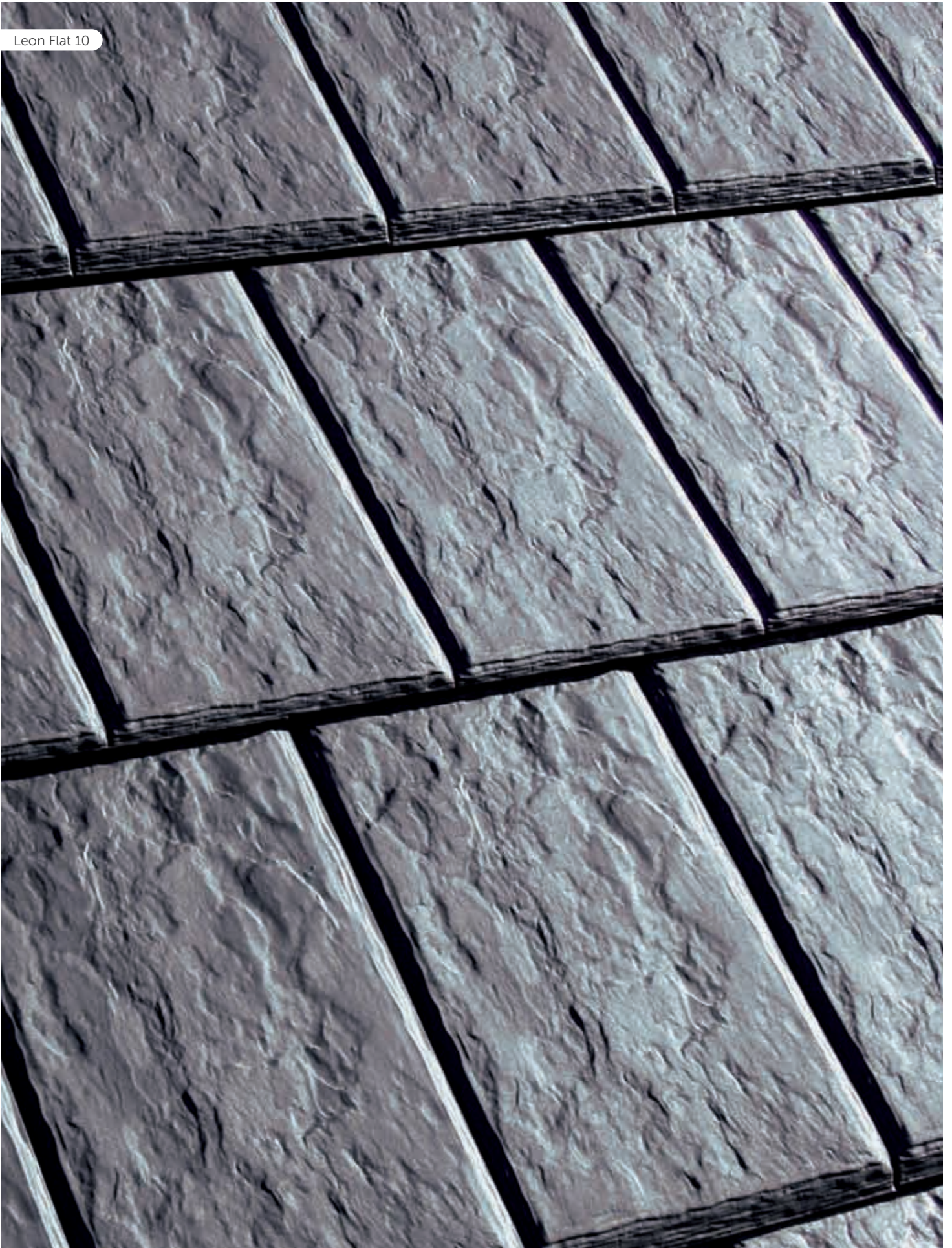
Approximate values*

	l	units per lineal meter	u./lm
length	l	external diameter	D
width	w	internal diameter	d
height	h		
weight	kg		

<p>2.5 u/lm</p>  <p>Angular Ridge 42 l 31 w 9.7 h 3.15 Kg</p>	 <p>Angular Hip Starter 42.2 l 29.3 w 10h 2.83 Kg</p>	<p>2.8/2.6 u/lm</p>  <p>Flat Straight Edges Left-Right Edges 40.4 l 12.4 w 12.4 h 2.50 Kg</p>	<p>2.5 u/lm <i>On monopitch</i></p>  <p>Universal Angular Edge 43 l 9.5 w 9.5 h 3.00 Kg</p>	 <p>Universal Straight End Cap 8.5 l 28.5 w 12.5 h 2.65 Kg</p>
 <p>Angular 3 Ways 45.1 l 29.3 w 10 h 4.37 Kg</p>	<p>1.4/1.3 u/lm</p>  <p>Half Flat 10 Left-Right 45 l 14 w 2.4 h 2.10/2.30 Kg</p>	 <p>Flat 10 Ventilation 45 l 28.7 w 7.5 h 4.50 Kg</p>	 <p>Flat 10 Chimney Carrier 45 l 28.7 w 7.8 h 4.10 Kg</p>	 <p>Universal Ventilation Cap 24.5 D 22 d 6 h 1.70 Kg</p>

Note: The colour reproduction is approximate, subject to change due to the natural colours of the clays. **Check** finishing colours for different accessories by telephone at: **+34 96 279 80 14**.


Leon Flat 10






FLAT 12

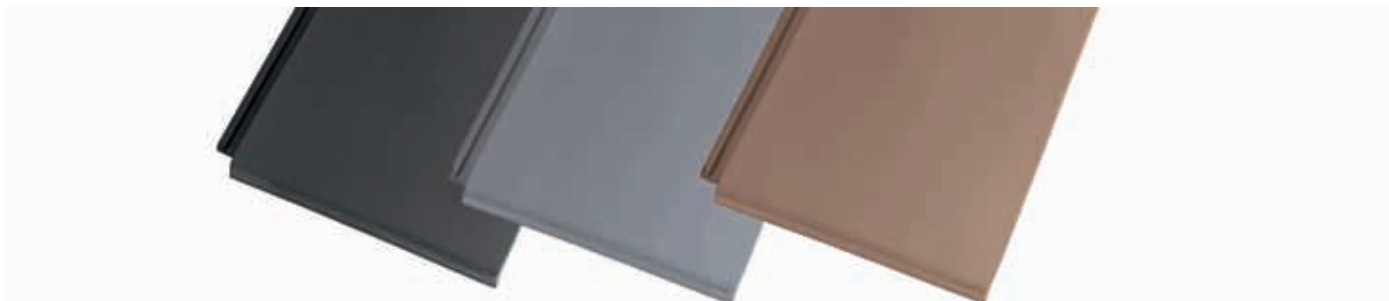
Find out more by reading the QR code.




Description	Main Features	
<p>The Flat 12 is the format of plain roof tile that belongs to the range of EXTREM-KER® products, technical perfection achieved throughout a firing process in a roller kiln.</p>	<p>Length: 39.7 cm Width: 26.7 cm Weight: 2.85 Kg Units / sq. m.: 12 uts Useful length: 33 cm</p> <p><small>Approximate values: it will be necessary to determine the useful length on site. Total waterproof is required for any pitch.</small></p>	

Key advantages


<p>EXTREM-KER® 1</p> <p>Water absorption: <3% High Strength Flatness: Maximum</p> 	<p>2</p> <p>High resistance. Wavy nerves</p> 	<p>3</p> <p>Light weight: 34.5 Kg / sq.m.</p>  <p>Maximum transport optimization</p>
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Technical Characteristics	Standard application	Minimum values AENOR
<p>Structural Characteristics Geometric properties Impermeability (cm³/cm²/day) Mechanical strength (N) Frost resistance (N° cycles)</p>	<p>UNE EN 1304 UNE EN 1024 UNE EN 539-1 (method 1 class 1) UNE EN 538 UNE EN 539-2 (method E)</p>	<p>≤ 2.5 + 2.0 ≤ 0.5 ≥ 900 ≥ 150</p> <div style="text-align: right;">  </div>

Galicia Grey Flat 12




TEJAS BORJA
Unique since 1899

Francisco Ramón Borja

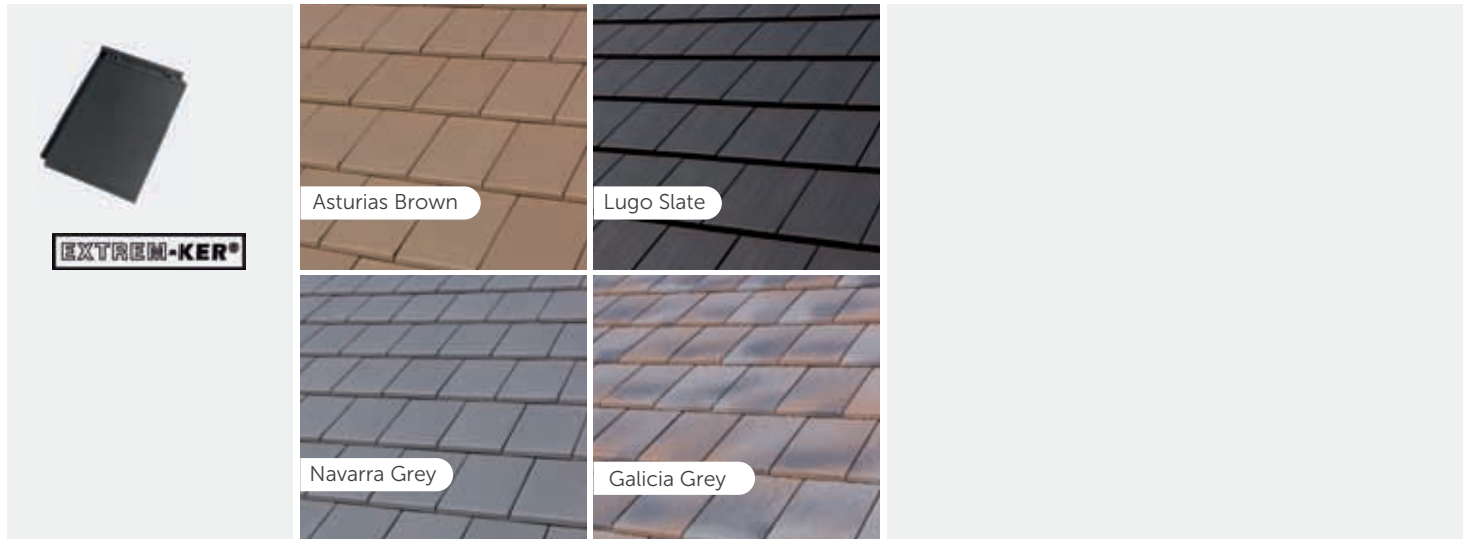


Lugo Slate Flat 12



Asturias Brown Flat 12

Flat 12 colours





Flat 12 accessories

Dimensions in cm

Approximate values*

	l	w	h	kg	units per lineal meter	u./lm	external diameter	D	internal diameter	d
length	l									
width		w								
height			h							
weight				kg						

<p>2.5 u./lm</p>  <p>Angular Ridge 42 l 31 w 9.7 h 3.15 Kg</p>	<p>Angular Hip Starter</p>  <p>Angular Hip Starter 42.2 l 29.3 w 10 h 2.83 Kg</p>	<p>3 u./lm</p>  <p>Flat Straight Edges Left-Right Edges 40.4 l 12.4 w 12.4 h 2.50 Kg</p>	<p>2.5 u./lm <i>On monopitch</i></p>  <p>Universal Angular Edge 43 l 9.5 w 9.5 h 3.00 Kg</p>	 <p>Universal Straight End Cap 8.5 l 28.5 w 12.5 h 2.65 Kg</p>
 <p>Angular 3 Ways 45.1 l 29.3 w 10 h 4.37 Kg</p>	<p>1.5 u./lm</p>  <p>Half Flat 12 Left-Right 39.7 l 13.4 w 2.5 h 1.77 Kg</p>	 <p>Flat 12 Ventilation 39.7 l 26.5 w 7.8 h 3.90 Kg</p>	<p>4 u./lm</p>  <p>Flat 12 Starter 17 l 26.5 w 2.5 h 1.27 Kg</p>	

Note: The colour reproduction is approximate, subject to change due to the natural colours of the clays. **Check** finishing colours for different accessories by telephone at: **+34 96 279 80 14**.

Galicia Grey Flat 12 detail



TB-4 Quattro®

Find out more by reading the QR code.



Description	Main Features	Trade model
<p>The TB-4 Quattro® is unique design that incorporates a curved profile in the pan side imitating four curved tiles.</p>	<p>Length: 44.2 cm Width: 25.8 cm Weight: 3.40 Kg Units / sq. m.: 12.4 uts Useful length: 37 cm</p> <p><small>Approximate values: it will be necessary to determine the useful length on site. Type: Double lateral overlapping and double longitudinal overlapping.</small></p>	

Key advantages

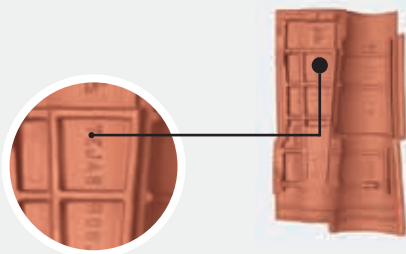
Maximum fixing play. Adaptable to rounded areas. Free lateral interlocking. Curved roof tile aesthetic effect of 50 tiles per m².

1



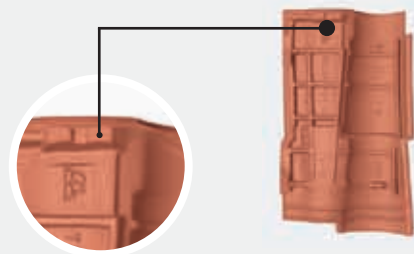
High resistance. Back ribs reinforcement.

2



Stability. Level fixing with double nib support.

3



Technical Characteristics

Structural Characteristics
 Geometric properties
 Impermeability (cm³/cm²/day)
 Mechanical strength (N)
 Frost resistance (N° cycles)

Standard application

UNE EN 1304
 UNE EN 1024
 UNE EN 539-1 (method 1 class 1)
 UNE EN 538
 UNE EN 539-2 (method E)

Minimum values AENOR

≤ 2.5
 ± 2.0
 ≤ 0.5
 ≥ 1200
 ≥ 150



Vilaterra® TB-4 Quattro®




TEJAS BORJA
Unique since 1899

Francisco Ramón Borja

TB - 4 Quattro®

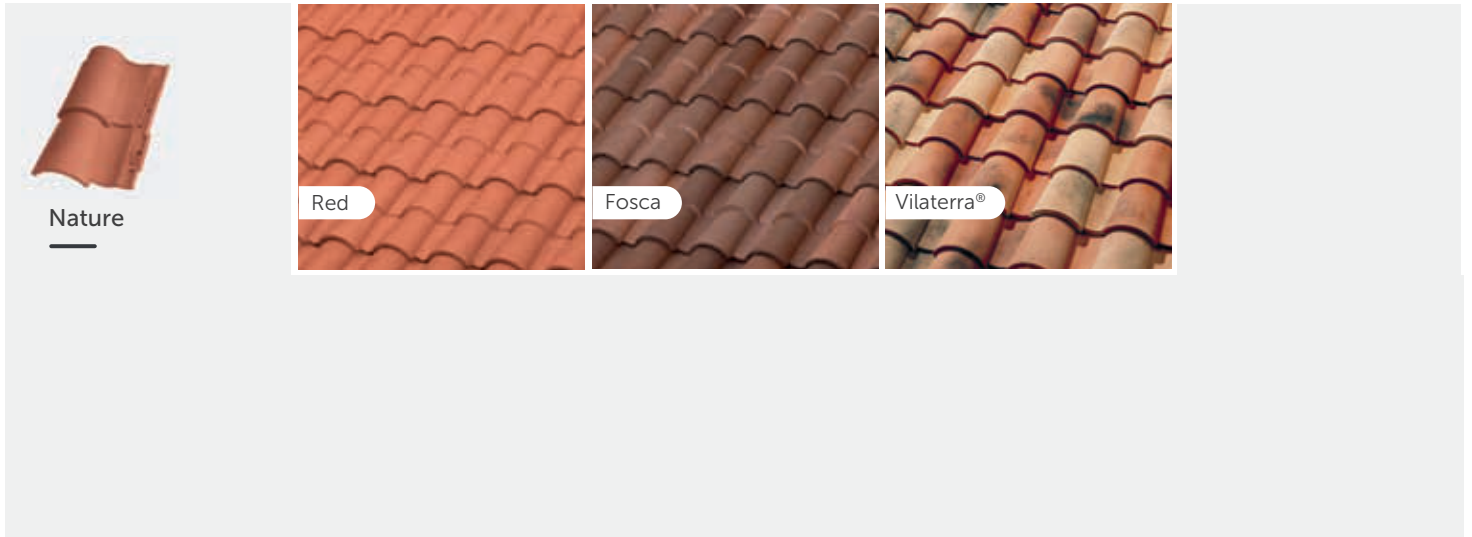


Red TB-4 Quattro®



Fosca TB-4 Quattro®

TB-4 Quattro® colours























Note: The colour reproduction is approximate, subject to change due to the natural colours of the clays. **Check** finishing colours for different accessories by telephone at: **+34 96 279 80 14**.

Dimensions in cm

Approximate values*

length	l	units per lineal meter	u./lm
width	w	external diameter	D
height	h	internal diameter	d
weight	kg		

TB-4 Quattro® accessories

<p>2.5 u./lm</p>  <p>Circular Ridge 43 l 23 w 9 h 2.90 Kg</p>	<p>2.5 u./lm</p>  <p>Circular Hip Starter 43 l 20 w 8.5 h 3.00 Kg</p>	<p>2.5 u./lm</p>  <p>Circular Sense Changement 42 l 19 w 7 h 2.90 Kg</p>	 <p>Universal Circular Straight End cap 7.5 l 24.7 w 27.9 h 2.40 Kg</p>	 <p>Universal Circular Curved End Cap 17.5 l 26.7 w 28 h 2.80 Kg</p>
<p>2.5 u./lm</p>  <p>TB-4 Curved Edge left-right 43 l 13.5 w 14 h 2.55 Kg</p>	<p>2.5 u./lm</p>  <p>Universal Straight Edge left-right 47 l 9 w 17 h 3.00 Kg</p>	<p>2.5 u./lm on monopitch</p>  <p>Universal Angular Edge 43 l 9.5 w 9.5 h 3.00 Kg</p>	 <p>Circular 3 Ways 37.5 l 23 w 9.5 h 4.20 Kg</p>	 <p>Circular 4 ways 38.5 l 44.5 w 13.5 h 4.50 Kg</p>
<p>5 u./lm</p>  <p>Universal Under Ridge 24 l 12.2 w 5.6 h 0.80 Kg</p>	<p>5 u./lm</p>  <p>One Half TB-4 Cover Decocurva® 25 l 16 w 5.5 h 1.00 Kg</p>	<p>5 u./lm</p>  <p>One Half TB-4 25 l 26 w 6 h 2.30 Kg</p>	 <p>TB-4 Ventilation 43.5 l 26 w 10 h 3.50 Kg</p>	 <p>TB-4 Chimney Carrier 43.5 l 26 w 18 h 16 D 13 d 4.00 Kg</p>
 <p>130 Universal Chimney 20.4 D 18 d 23.5 h 2.15 Kg</p>	 <p>Universal Ventilation Cap 24.5 D 22 d 6 h 1.70 Kg</p>	<p>5 u./lm</p>  <p>TB-4 Pan Decocurva® 46 l 16 w 6 h 2.60 Kg</p>	<p>5 u./lm</p>  <p>Half TB-4 / TB-4 Cover Decocurva® 44 l 15.5 w 6 h 1.83 Kg</p>	<p>5 u./lm</p>  <p>Universal Eave Closure 13.8 l 7.1 w 6.8 h 0.60 Kg</p>

TB-12®

Find out more by reading the QR code.



Description	Main Features	Image
<p>The TB-12® roof tile is a classic interlocking s-type profile. Today it remains the most widely used roof tile in all types of construction.</p>	<p>Length: 43.9 cm Width: 26 cm Weight: 3.15 Kg Units / sq. m.: 12.5 uts Useful length: 37 cm</p> <p><small>Approximate values: it will be necessary to determine the useful length on site. Type: Double lateral overlapping and double longitudinal overlapping. Certified characteristics are: appearance, geometric characteristics, resistance to breakage by bending, waterproofing (class 1), and frost resistance (method E) for all products made in red clay.</small></p>	

Key advantages

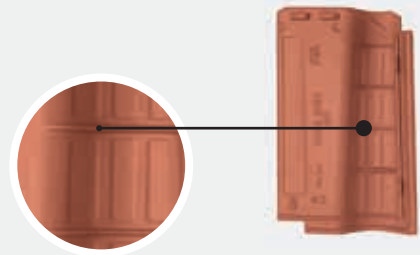
1 The best seller roof tile in the market.

Over **half a million** houses worldwide.

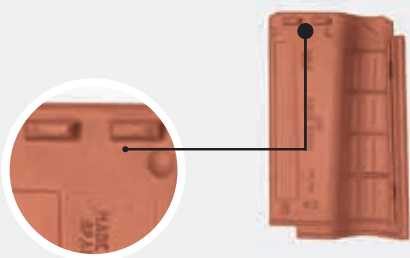


500 thousand houses

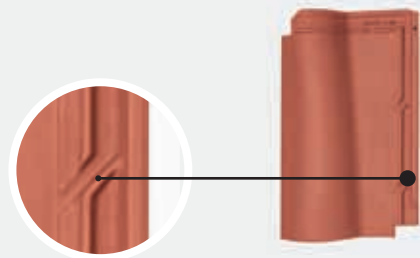
2 High resistance thanks to the reinforcement ribs back.



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



4 Multiple discontinuous interlocks designed for watertight assembly.



Technical Characteristics

Structural Characteristics
 Geometric properties
 Impermeability (cm³/cm²/day)
 Mechanical strength (N)
 Frost resistance (N° cycles)

Standard application

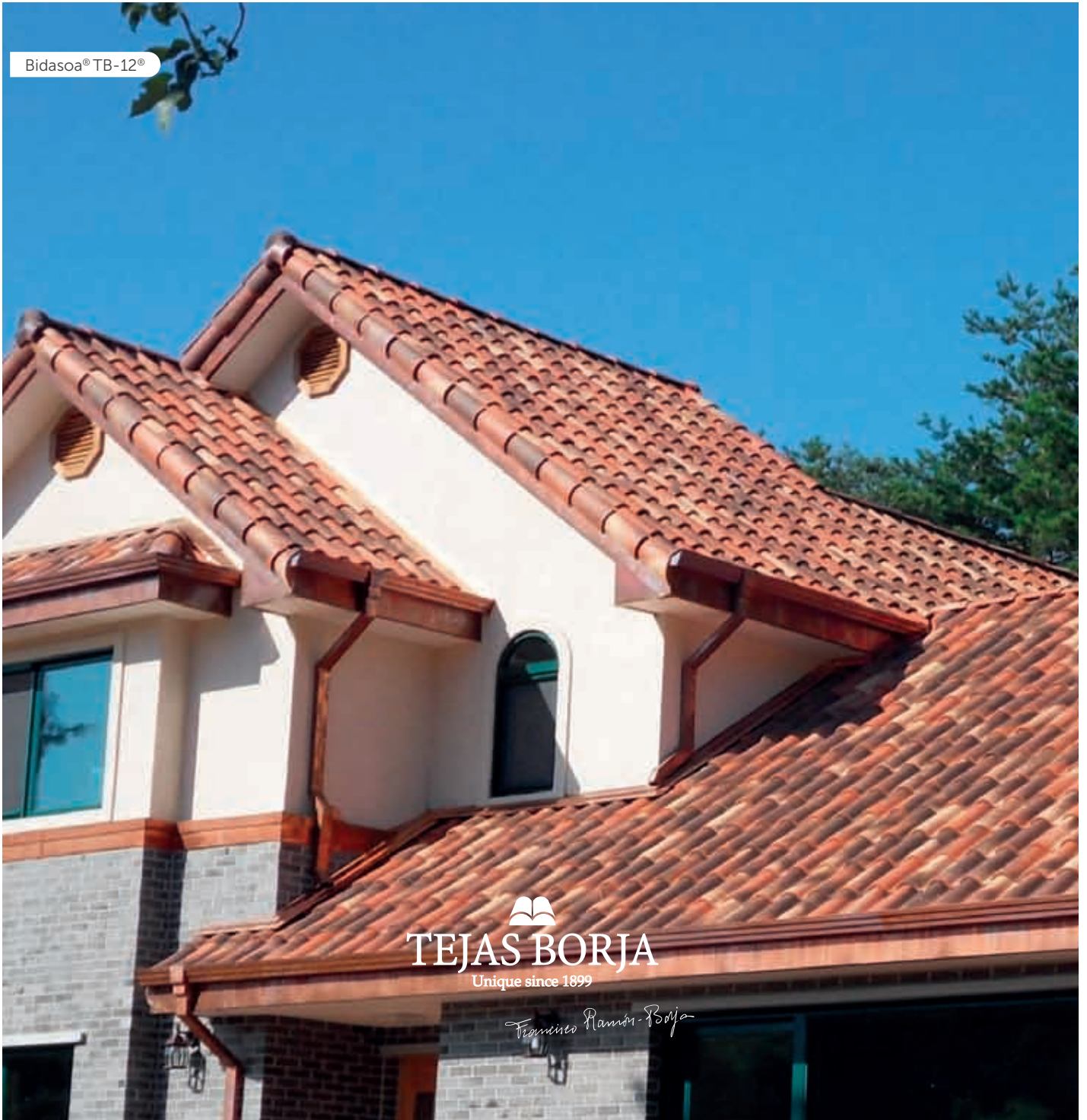
UNE EN 1304
 UNE EN 1024
 UNE EN 539-1 (method 1 class 1)
 UNE EN 538
 UNE EN 539-2 (method E)


Minimum values AENOR

≤ 2.5
 ± 2.0
 ≤ 0.5
 ≥ 1200
 ≥ 150



Bidasoa® TB-12®




TEJAS BORJA
Unique since 1899

Francisco Ramón Borja

TB-12®

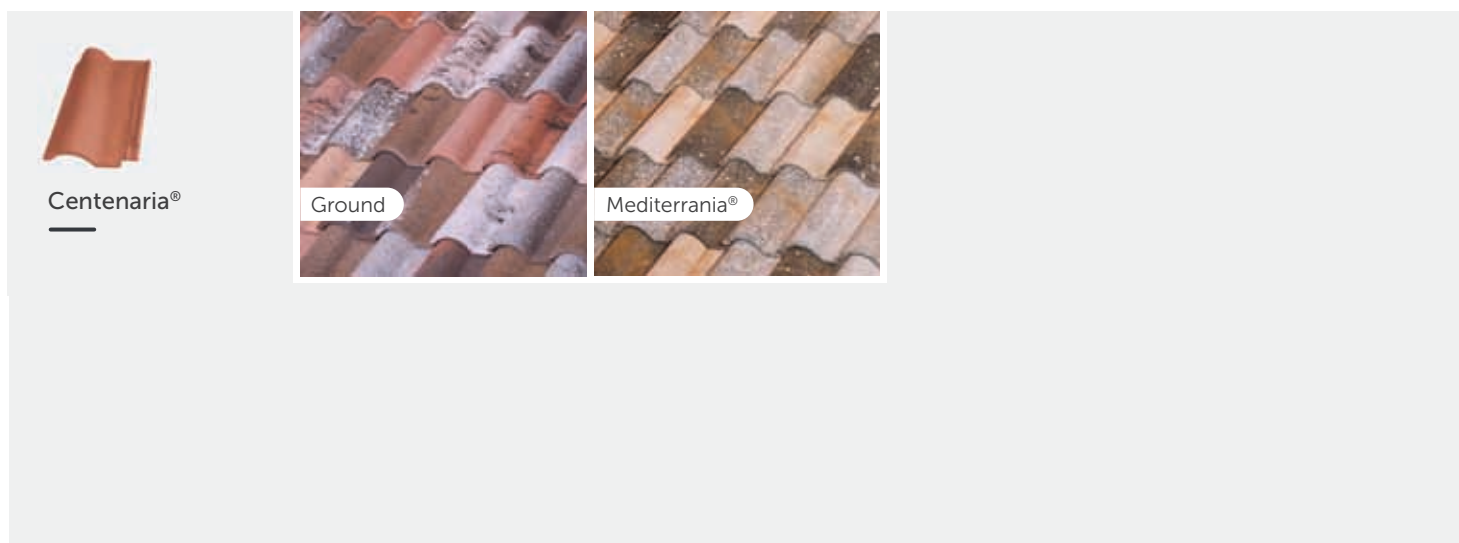
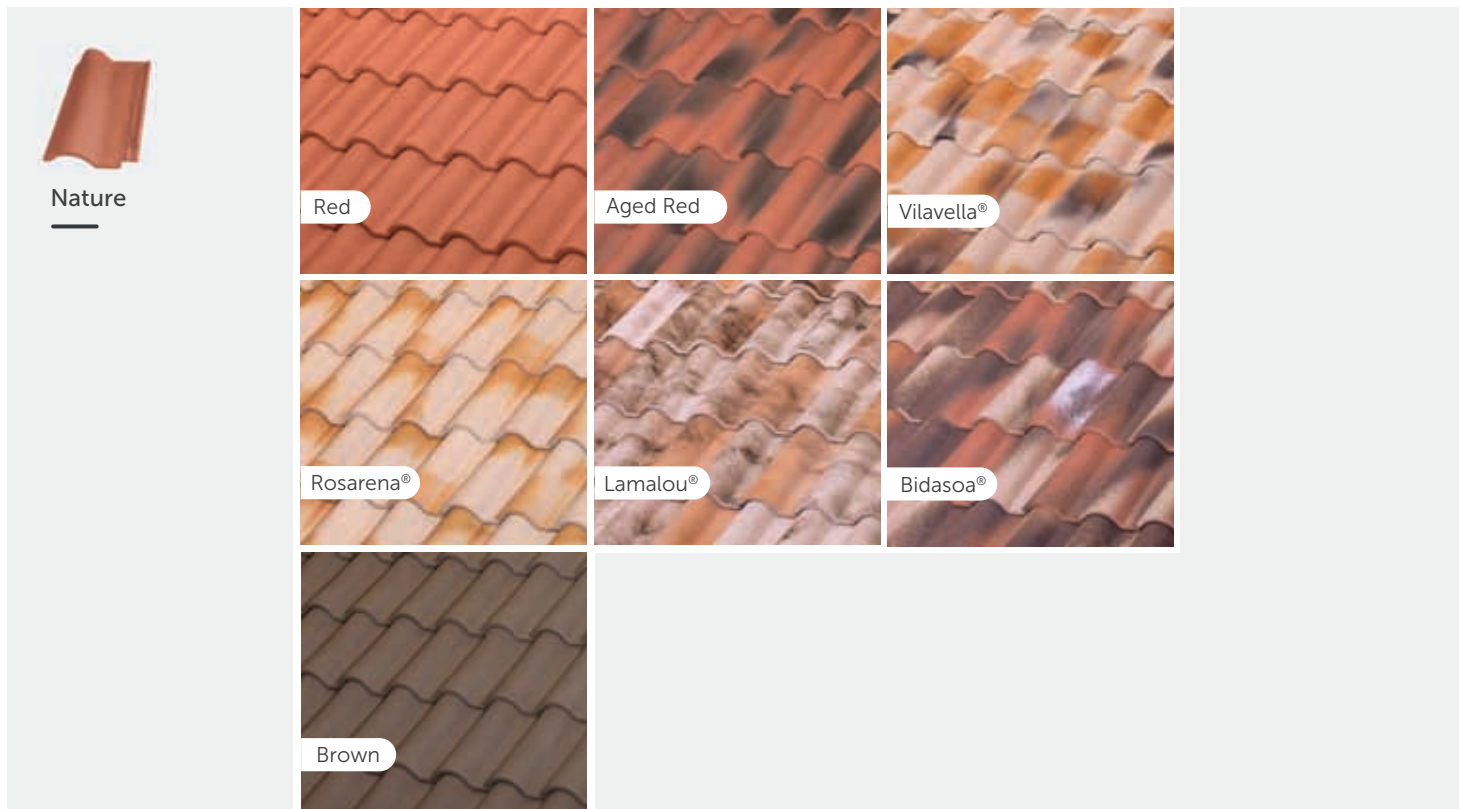


Aged Red TB-12®



Brown TB-12®

TB-12® colours































Note: The colour reproduction is approximate, subject to change due to the natural colours of the clays. **Check** finishing colours for different accessories by telephone at: **+34 96 279 80 14**.

Dimensions in cm

Approximate values*

length	l	units per lineal meter	u./lm
width	w	external diameter	D
height	h	internal diameter	d
weight	kg		

TB-12® accessories

<p>2.5 u./lm</p>  <p>Circular Ridge 43 l 23 w 9 h 2.90 Kg</p>	<p>2.5 u./lm</p>  <p>Cover + Ridge 44.5 l 28.5 w 10.5 h 3.50 Kg</p>	 <p>Circular Hip Starter 43 l 20 w 8.5 h 3.00 Kg</p>	 <p>Cover + Hip Starter 43.5 l 23 w 8.5 h 3.20 Kg</p>	 <p>Circular Sense Chagement 42 l 19 w 7 h 2.90 Kg</p>
 <p>Cover + Sense Chagement 43.5 l 25 w 8.5 h 3.50 Kg</p>	<p>2.5 u./lm</p>  <p>Universal Straight Edge left-right 47 l 9 w 17 h 3.00 Kg</p>	<p>2.5 u./lm</p>  <p>Universal Curved Edge left-right 47 l 18.7 w 16 h 3.25 Kg</p>	<p>2.5 u./lm</p> <p><i>On monopitch</i></p>  <p>Universal Angular Edge 43 l 9.5 w 9.5 h 3.00 Kg</p>	<p>2.5 u./lm</p>  <p>TB-12° Bardelis Edge left-right 43 l 17 w 18 h 2.25 Kg</p>
 <p>Universal Circular Straight End cap 7.5 l 24.7 w 27.9 h 2.40 Kg</p>	 <p>Universal Cover + Straight End cap 6.5 l 27 w 31 h 2.00 Kg</p>	 <p>Universal Circular Curved End Cap 17.5 l 24.7 w 27.9 h 2.80 Kg</p>	 <p>Universal Cover+ Curved End Cap 14.7 l 27.5 w 29.5 h 2.50 Kg</p>	 <p>TB-12° Cover + Bardelis End Cap 15.5 l 27 w 25 h 2.30 Kg</p>
 <p>Circular 3 Ways 37.5 l 23 w 9.5 h 4.20 Kg</p>	 <p>Cover + 3 Ways 32.5 l 42.5 w 14.5 h 3.10 Kg</p>	 <p>Circular 4 ways 38.5 l 44.5 w 13.5 h 4.50 Kg</p>	 <p>Cover + 4 Ways 40.5 l 40.5 w 14 h 4.00 Kg</p>	<p>5 u./lm</p> <p><i>On monopitch</i></p>  <p>Universal Under Ridge 24 l 12.2 w 5.6 h 0.80 Kg</p>
<p>2.5 u./lm</p>  <p>Half TB-12° 44 l 16 w 6.5 h 1.80 Kg</p>	<p>2.5 u./lm</p>  <p>TB-12° Tile and a half 43.6 l 36 w 7 h 4.50 Kg</p>	<p>5 u./lm</p>  <p>2/3 TB-12° 30.5 l 26.5 w 7 h 2.20 Kg</p>	 <p>2/3 Tile and a half TB-12° 30 l 36.2 w 7 h 3.24 Kg</p>	 <p>TB-12° Ventilation 44 l 26 w 7 h 3.20 Kg</p>
 <p>TB-12° Chimney Carrier 43.5 l 25.5 a 11 h 16 D 13 d 4.15 Kg</p>	 <p>130 Universal Chimney 20.4 D 18 d 23.5 h 2.15 Kg</p>	 <p>Universal Ventilation Cap 24.5 D 22 d 6 h 1.70 Kg</p>	<p>5 u./lm</p>  <p>TB-12° Pan Decocurva® 47 l 16 w 7 h 2.50 Kg</p>	<p>5 u./lm</p>  <p>TB-12° Cover Decocurva® 47 l 17 w 7 h 2.00 Kg</p>

TB-10

Find out more by reading the QR code.



Description	Main Features	Image
<p>The TB-10 is the larger S-type profile. The wider overlapping edges with discontinuous interlock provide a tighter joint between the tiles making the TB-10 the safest watertight large profile roof tile.</p>	<p>Length: 47 cm Width: 29.4 cm Weight: 4.1 Kg Units / sq. m.: 10.5 uts Useful length: 38.5 cm</p> <p><small>Approximate values: it will be necessary to determine the useful length on site. Type: Double lateral overlapping and double longitudinal overlapping. Certified characteristics are: appearance, geometric characteristics, resistance to breakage by bending, waterproofing (class 1), and frost resistance (method E) for all products made in red clay.</small></p>	

Key advantages

Perfect imitation of curved roof tile. 1

Maximum stability with double nib support. 2

Maximum longitudinal and transversal overlap. 3

Compatible with s-type profile layers. 4

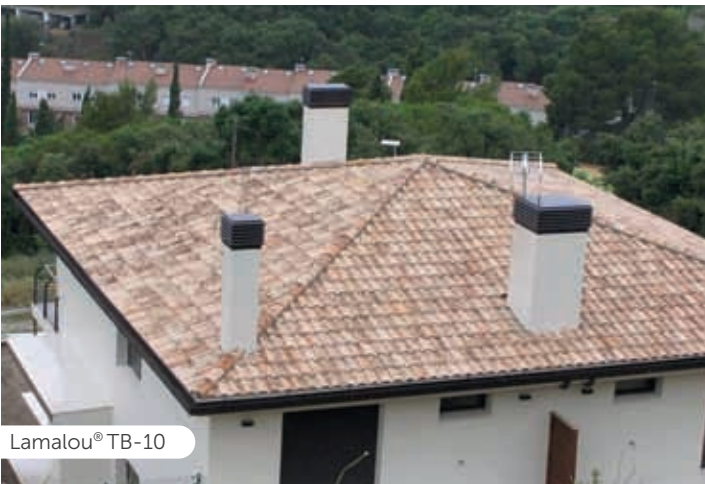
Technical Characteristics	Standard application	Minimum values AENOR
Structural Characteristics Geometric properties Impermeability (cm ³ /cm ² /day) Mechanical strength (N) Frost resistance (N° cycles)	UNE EN 1304 UNE EN 1024 UNE EN 539-1 (method 1 class 1) UNE EN 538 UNE EN 539-2 (method E)	≤ 2.5 ± 2.0 ≤ 0.5 ≥ 1200 ≥ 150



Fosca TB-10



TB-10



Lamalou® TB-10

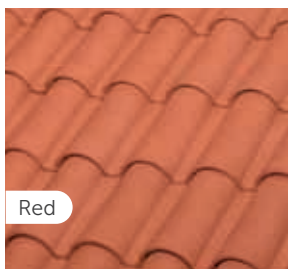


Edetania® TB-10

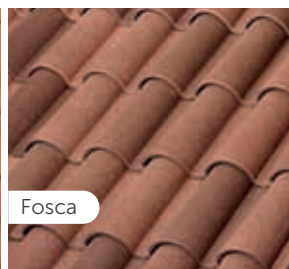
TB-10 colours



Nature



Red



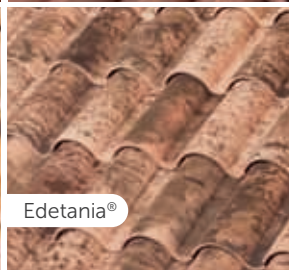
Fosca



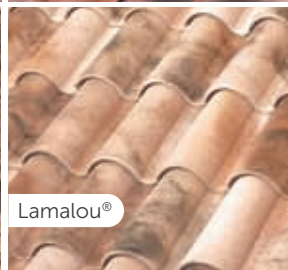
Manoir®



Vilavella®



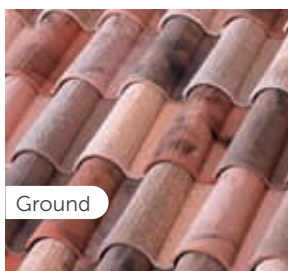
Edetania®



Lamalou®



Centenaria®



Ground



Sand





























Note: The colour reproduction is approximate, subject to change due to the natural colours of the clays. **Check** finishing colours for different accessories by telephone at: **+34 96 279 80 14**.

Dimensions in cm

Approximate values*

	l	units per lineal meter	u./lm
length	l	external diameter	D
width	w	internal diameter	d
height	h		
weight	kg		

TB-10 accessories

<p>2.5 u./lm</p>  <p>Circular Ridge 43 l 23 w 9 h 2.90 Kg</p>	<p>2.5 u./lm</p>  <p>Cover + Ridge 44.5 l 28.5 w 10.5 h 3.50 Kg</p>	 <p>Circular Hip Starter 43 l 20 w 8.5 h 3.00 Kg</p>	 <p>Cover + Hip Starter 43.5 l 23 w 8.5 h 3.20 Kg</p>	 <p>Circular Sense Change ment 42 l 19 w 7 h 2.90 Kg</p>
 <p>Cover + Sense Change ment 43.5 l 25 w 8.5 h 3.50 Kg</p>	<p>2.5 u./lm</p>  <p>Universal Straight Edge left-right 47 l 9 w 17 h 3.00 Kg</p>	<p>2.5 u./lm</p>  <p>Universal Curved Edge left-right 47 l 18.7 w 16 h 3.25 Kg</p>	<p>2.5 u./lm</p>  <p>Universal Angular Edge 43 l 9.5 w 9.5 h 3.00 Kg</p>	 <p>Universal Circular Straight End cap 7.5 l 24.7 w 27.9 h 2.40 Kg</p>
 <p>Universal Cover + Straight End cap 6.5 l 27 w 31 h 2.00 Kg</p>	 <p>Universal Circular Curved End Cap 17.5 l 26.7 w 28 h 2.80 Kg</p>	 <p>Universal Cover+ Curved End Cap 14.7 l 27.5 w 29.5 h 2.50 Kg</p>	 <p>Circular 3 Ways 37.5 l 23 w 9.5 h 4.20 Kg</p>	 <p>Cover + 3 Ways 32.5 l 42.5 w 14.5 h 3.10 Kg</p>
 <p>Circular 4 ways 38.5 l 44.5 w 13.5 h 4.50 Kg</p>	 <p>Cover + 4 Ways 40.5 l 40.5 w 14 h 4.00 Kg</p>	<p>5 u./lm (on monopitch)</p>  <p>Universal Under Ridge 24 l 12.2 w 5.6 h 0.80 Kg</p>	<p>2.5 u./lm</p>  <p>Half TB-10 47.5 l 19.2 w 6.5 h 2.60 Kg</p>	<p>2.5 u./lm</p>  <p>TB-10 Tile and a half 47 l 43 w 7.5 h 5.65 Kg</p>
<p>5 u./lm</p>  <p>2/3 TB-10 33.5 l 29.5 w 7 h 3.00 Kg</p>	 <p>TB-10 Ventilation 47.5 l 29.5 w 8.5 h 4.10 Kg</p>	 <p>TB-10 Chimney Carrier 47 l 29.5 w 12 h 18.5 D 16 d 4.40 Kg</p>	 <p>140 TB-10 Chimney 23 D 20.5 d 23.5 h 2.35 Kg</p>	 <p>Universal Ventilation Cap 24.5 D 22 d 6 h 1.70 Kg</p>
<p>5 u./lm</p>  <p>TB-10 Pan Decocurva® 49.5 l 15 w 7 h 2.60 Kg</p>	<p>5 u./lm</p>  <p>TB-10 Cover Decocurva® 47 l 12.2 w 5.6 h 2.50 Kg</p>	<p>5 u./lm</p>  <p>TB-10 Eave Closure 23.3 l 10.2 w 9 h 0.85 Kg</p>		

T-ECOL 11[®]

Find out more by reading the QR code.



Description	Main Features	Image
<p>Its lightness and optimization of packaging and transport make the T-Ecol 11[®] roof tile the most environmental friendly interlocking roof tile made by Tejas Borja.</p>	<p>Length: 47.5 cm Width: 26 cm Weight: 3.45 Kg Units / sq. m.: 11 uts Useful length: 42 cm</p> <p><small>Approximate values: it will be necessary to determine the useful length on site. Type: Double lateral overlapping and double longitudinal overlapping.</small></p>	

Key advantages

Light weight. 38 Kg/sq.m.



1

Maximum transport optimization

Ecological. Minimum production energy consumption and waste packaging.



2

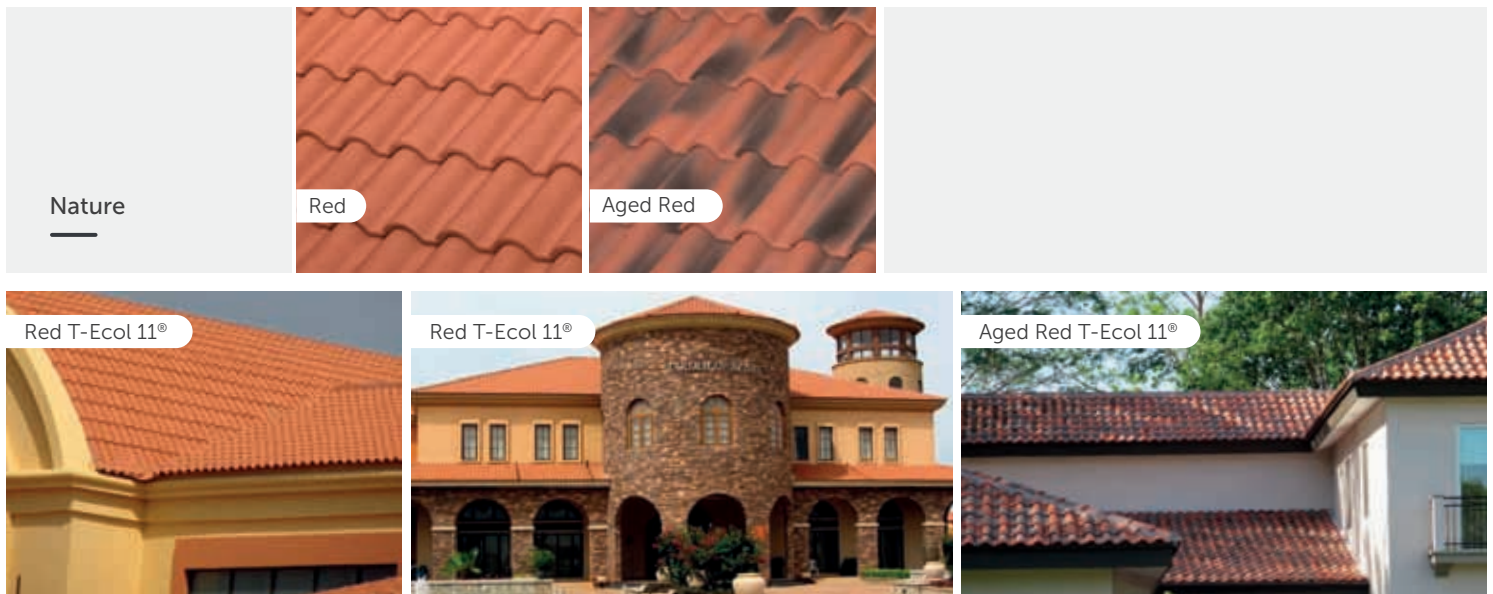
Economic.



3

Saves 10% in batten use

T-Ecol[®] 11 colours



Aged Red T-Ecol 11®

T-Ecol 11®



TEJAS BORJA
Unique since 1899

Francisco Ramón Borja

T-Ecol® 11 accessories

Dimensions in cm

Approximate values*

	l	w	h	units per lineal meter	u./lm
length	l			weight	kg
width	w				
height	h				

<p>2.5 u./lm</p>  <p>Cover + Ridge 44.5 l 28.5 w 10.5 h 3.50 Kg</p>	 <p>Cover + Hip Starter 43.5 l 23 w 8.5 h 3.20 Kg</p>	 <p>Cover + Sense Chagement 43.5 l 25 w 8.5 h 3.50 Kg</p>	<p>2.5 u./lm <i>on monopitch</i></p>  <p>Universal Angular Edge 43 l 9.5 w 9.5 h 3.00 Kg</p>	 <p>Cover + 3 Ways 32.5 l 42.7 w 14.5 h 3.10 Kg</p>
 <p>Cover + 4 Ways 40.5 l 40.5 w 14 h 4.00 Kg</p>	<p>2.5 u./lm <i>on monopitch</i></p>  <p>Universal Under Ridge 24 l 12.2 w 5.6 h 0.80 Kg</p>	<p>2.5 u./lm</p>  <p>Half T-Ecol 11® 47.5 l 19.2 w 2.60 Kg</p>	 <p>T-Ecol 11® Ventilation 47.5 l 29.5 w 8.5 h 4.10 Kg</p>	<p>5 u./lm</p>  <p>Universal Eave Closure 13.8 l 7.1 w 6.8 h 0.60 Kg</p>






Plana Alicantina


Find out more by reading the QR code.



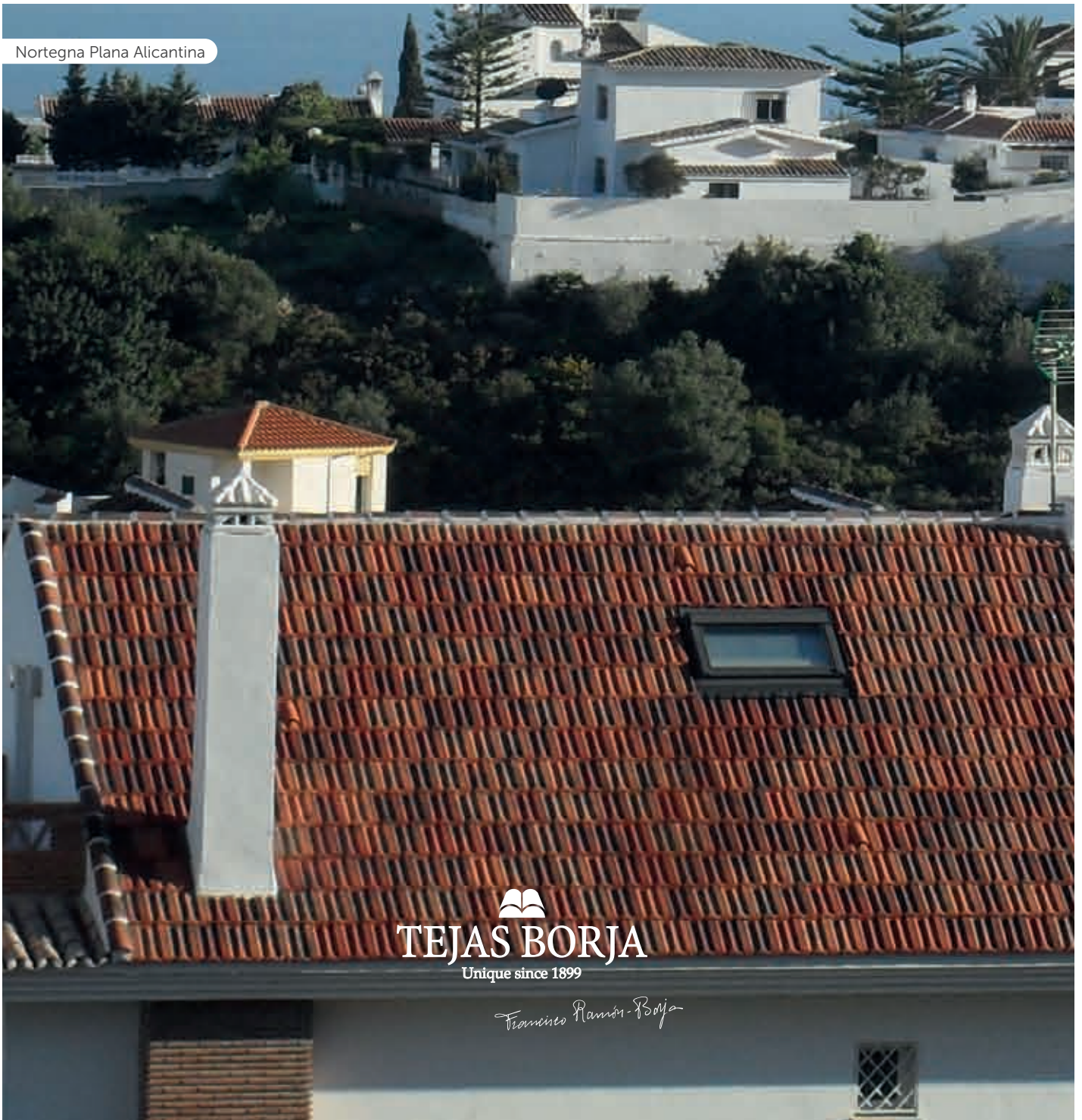
Description	Main Features	
<p>The Plana Alicantina format is the traditional format manufactured by Tejas Borja for already three generations.</p>	<p>Length: 43 cm Width: 25.2 cm Weight: 3.2 Kg. Units / sq. m.: 12 uts Useful length: 37 cm</p> <p><small>Approximate values: it will be necessary to determine the useful length on site.</small></p>	

Key advantages

<p>1 First pressed roof tile in the market.</p>  <p>Plana Alicantina from Francisco Ramón Borja 19th century</p> 	<p>2 Roof tile profile and colours range that assists renovation and roofing restoration.</p> 	<p>3 Strapped packages.</p>  
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Technical Characteristics	Standard application	Minimum values AENOR
<p>Structural Characteristics Geometric properties Impermeability (cm³/cm²/day) Mechanical strength (N) Frost resistance (Nº cycles)</p>	<p>UNE EN 1304 UNE EN 1024 UNE EN 539-1 (method 1 class 1) UNE EN 538 UNE EN 539-2 (method E)</p>	<p>≤ 2.5 ± 2.0 ≤ 0.5 ≥ 900 ≥ 150</p> 

Nortegna Plana Alicantina




TEJAS BORJA
Unique since 1899

Francisco Ramón Borja

Plana Alicantina

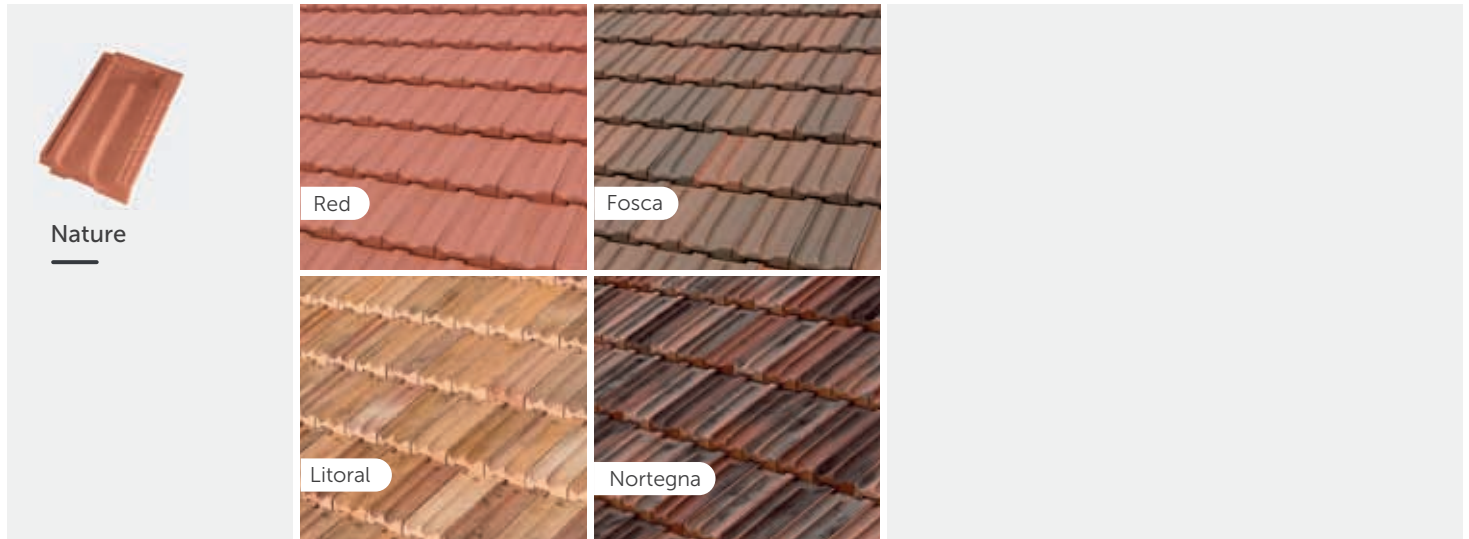


Fosca Plana Alicantina



Red Plana Alicantina

Plana Alicantina colours



Plana Alicantina accessories

Dimensions in cm

Approximate values*

	l	w	h	kg	units per lineal meter	u./lm
length	l				units per lineal meter	u./lm
width	w				external diameter	D
height	h				internal diameter	d
weight	kg					

<p>2.5 u./lm</p>  <p>Angular Ridge 42 l 31 w 9.7 h 3.15 Kg</p>	<p>Angular Hip Starter</p>  <p>Angular Hip Starter 42.2 l 29.3 w 10 h 2.83 Kg</p>	<p>Angular 3 Ways</p>  <p>Angular 3 Ways 45.1 l 29.3 w 10 h 4.37 Kg</p>	<p>2.5 u./lm On monopitch</p>  <p>Universal Angular Edge 43 l 9.5 w 9.5 h 3.00 Kg</p>	 <p>Universal Straight End Cap 8.5 l 28.5 w 12.5 h 2.65 Kg</p>
<p>1.25 u./lm</p>  <p>Half Alicantina Flat Left-Right 43 l 15 w 4.5 h 1.80 Kg</p>	 <p>Alicantina Flat Ventilation 43 l 25.5 w 9 h 3.70 Kg</p>	 <p>Alicantina Flat Chimney Carrier 43 l 25.5 w 12 h 15.5 D 13.5 d 4.00 Kg</p>	 <p>130 Universal Chimney 20.4 D 18 d 23.5 h 2.15 Kg</p>	 <p>Universal Ventilation Cap 24.5 D 22 d 6 h 1.70 Kg</p>

Note: The colour reproduction is approximate, subject to change due to the natural colours of the clays. **Check** finishing colours for different accessories by telephone at: **+34 96 279 80 14**.

Litoral Plana Alicantina



Curved roof tile

Find out more by reading the QR code.



40x19	40x15
<p>Length: 40.8 cm Width: 18 cm max, 14 cm min Weight: 1.6 Kg Units / sq. m.: 30 uts</p>	<p>Length: 40.8 cm Width: 15 cm max, 11.6 cm min Weight: 1.35 Kg Units / sq. m.: 33 uts</p>
Celler® 50x21	45x20
<p>Length: 50 cm Width: 21 cm max, 17 cm min Weight: 2.4 Kg Units / sq. m.: 18 uts</p>	<p>Length: 45 cm Width: 20 cm max, 16 cm min Weight: 1.85 Kg Units / sq. m.: 25 uts</p>



Key advantages

Perfect installation without cuts.
Dimensional continuity.



1

High breakage resistance.



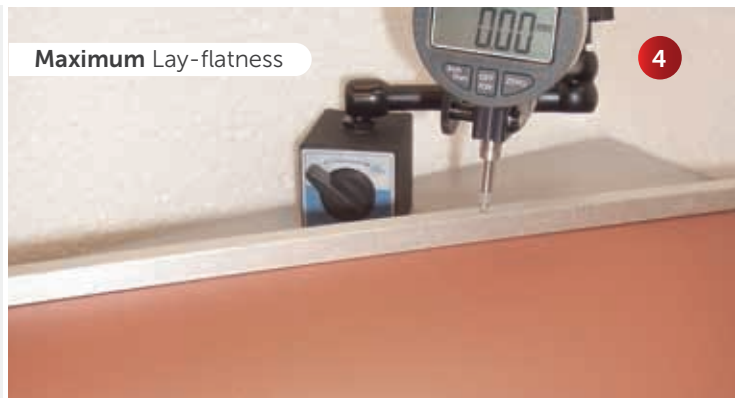
2

Automatic strapped packaging.
Easy handling on deck.



3

Maximum Lay-flatness



4


Rounded edges



5

Lamalou® Celler® 50x21




TEJAS BORJA
 Unique since 1899

Fernando Ramón Borja

Technical Characteristics

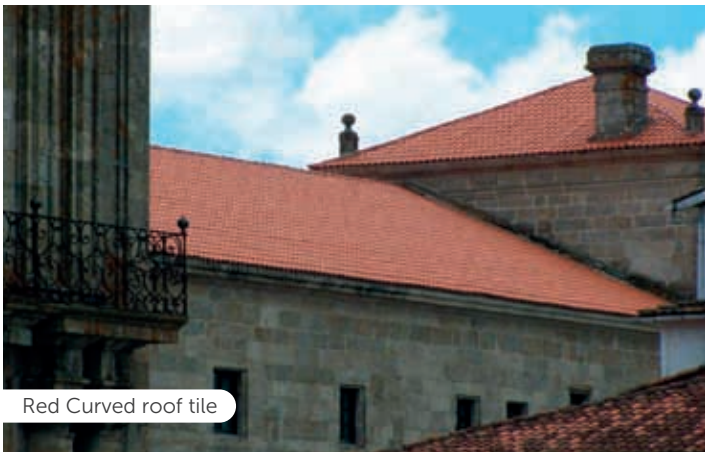
Structural Characteristics
 Geometric properties
 Impermeability (cm³/cm²/day)
 Mechanical strength (N)
 Frost resistance (N^o cycles)

Standard application

UNE EN 1304
 UNE EN 1024
 UNE EN 539-1 (method 1 class 1)
 UNE EN 538
 UNE EN 539-2 (method E)

Minimum values AENOR

≤ 2.5
 ± 2.0
 ≤ 0.5
 ≥ 1000
 ≥ 150

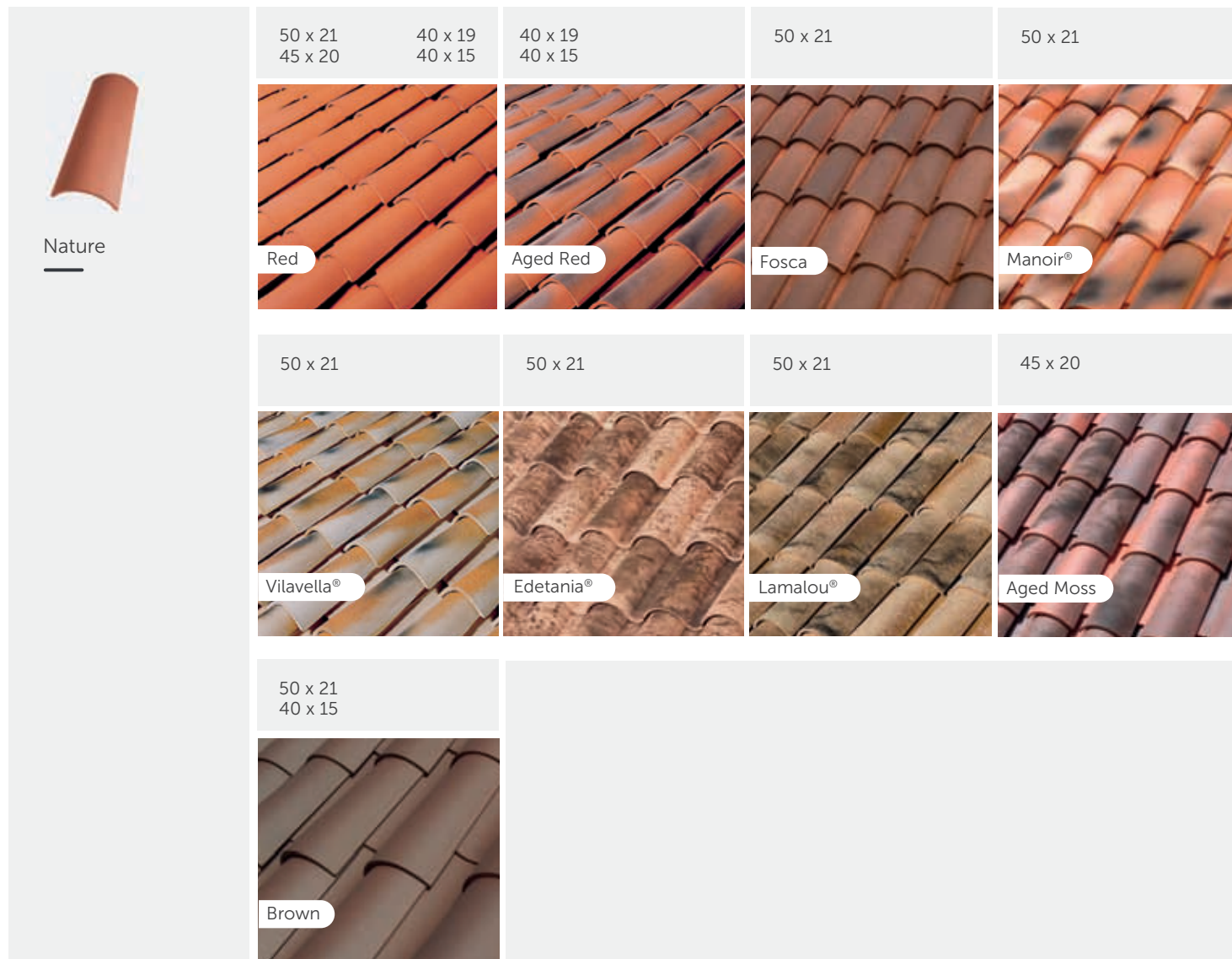


Red Curved roof tile




Manoir® Celler® 50x21

Curved roof tiles colours



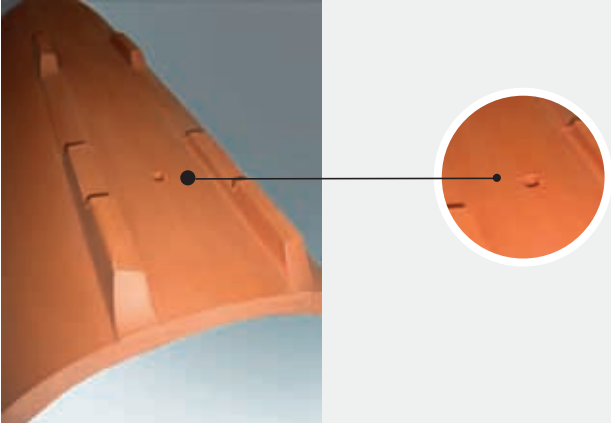
Note: The colour reproduction is approximate, subject to change due to the natural colours of the clays.

Curved roof tiles accessories

Step Celler®50x21	Main Features	
<p>Part with nib support on the underside, is placed in the pan position for proper water drainage. Provided with a hole for fixing it to the battens.</p> <p>Finishes: Red and Manoir®</p>	<p>Length: 50 cm Width: 20.5 cm max, 16.5 min Weight: 2.5 Kg Units / sq.m.: 10 uts</p>	

Key advantage

Dry installation.
Pre-drilled hole.





 <p>Celler® 50x21 Hip Starter 50 l 17.5 w 7.5 h 2.80 Kg</p>	 <p>Celler® 50x21 3 Ways 32.5 l 30.5 w 15 h 2.70 Kg</p>	 <p>Celler® 50x21 Ventilation 50 l 21 w 17.4 h 2.60 Kg</p>	 <p>Celler® 50x21 Chimney Carrier 50 l 21.5 w 18 h 16 D 12 d 3.20 Kg</p>	 <p>130 Universal Chimney 20.4 D 18 d 23.5 h 2.15 Kg</p>
 <p>Universal Ventilation Cap 24.5 D 22 d 6 h 1.70 Kg</p>	<p>5 u./lm (on monopitch)</p>  <p>Universal Under Ridge 24 l 12.2 w 5.6 h 1.70 Kg</p>	 <p>TC 45x20 Ventilation 40.5 l 18 w 2.50 Kg</p>	 <p>TC 40x19 Ventilation 40.8 l 18 w 1.70 Kg</p>	 <p>TC 40x15 Ventilation 40.8 l 15 w 1.40 Kg</p>

Note: Check finishing colours for different accessories by telephone at: **+34 96 279 80 14.**

25x12 Curved roof tile

Find out more
by reading
the QR code.

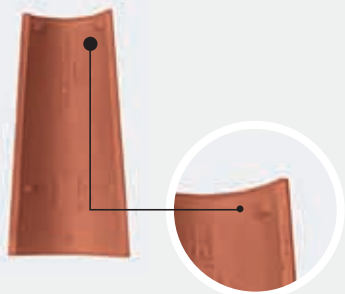


Description	Main Features	
The Curve 25 x 12 , given its small dimensions is used to cover, decorate and finish facades, roofs and other building elements.	Length: 25 cm Width: 12 cm Weight: 0.65 Kg Units / sq. m.: 70 uts	

Key advantages

Excellent aesthetic finishing.
The only pressed curved roof tile in the market.

1



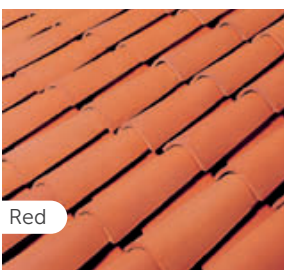
Packaged in boxes (42 units).
Transport optimization.

2



Curved 25x12 roof tile colours

Nature



Red



Vilavella®

Escama

Find out more by reading the QR code.



Description	Main Features
<p>The Classic roof tile "Escama" (scale) is a flat profile roof tile used, generally, to cover conical or spherical areas. It is also used as decoration and, in old buildings, to cover Domes.</p>	<p>Length: 19.5 cm Width: 15 cm Weight: 0.40 Kg Units / sq. m.: 78 uts</p> <p><small>Approximate values: it will be necessary to determine the useful length on site.</small></p>



Key advantages

Replacement and Restoration.

1



Decorative interior cladding.

2







Dimensions in cm

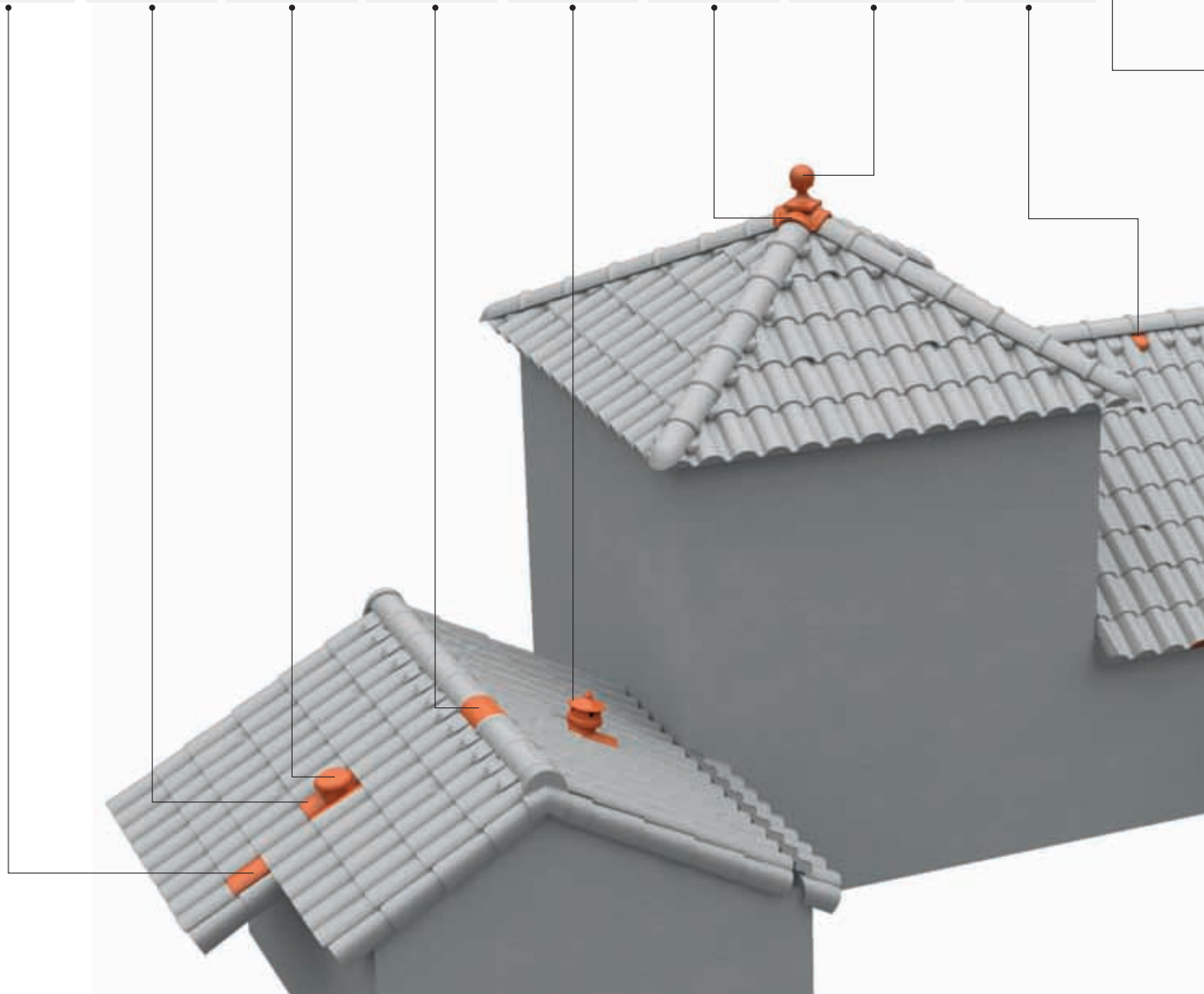
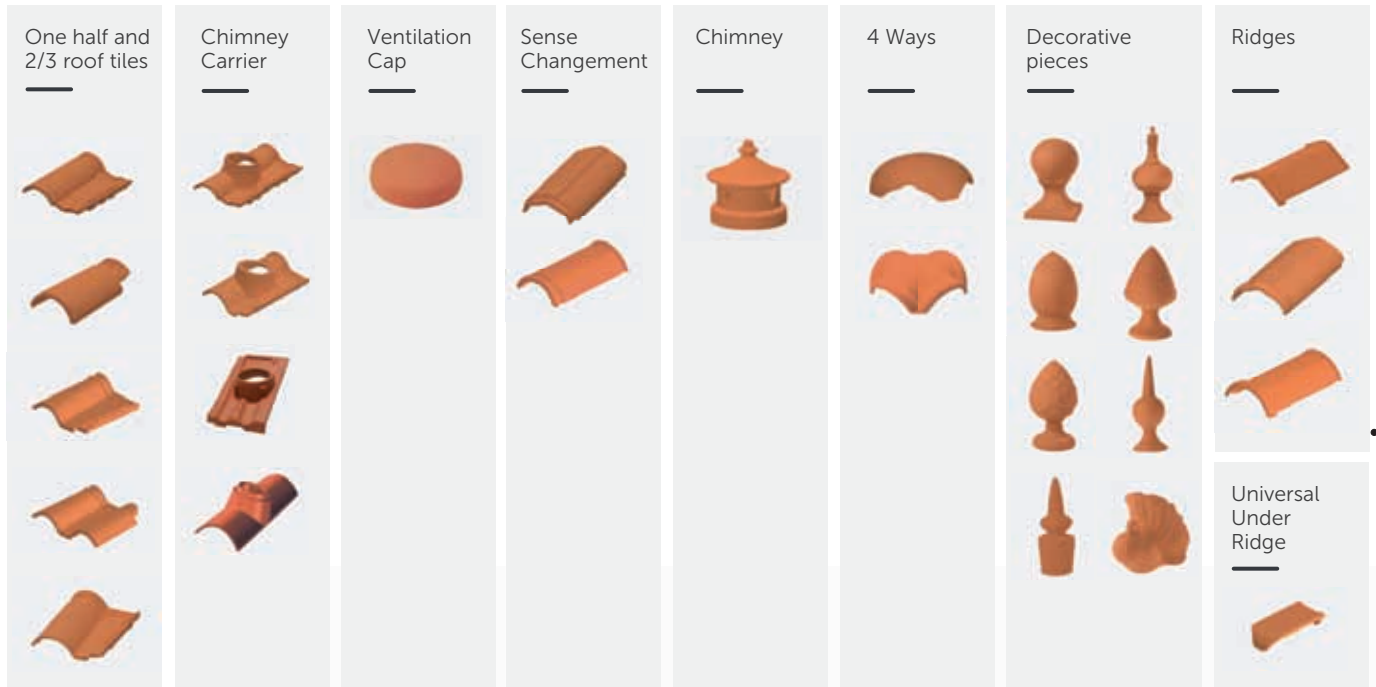
Approximate values*

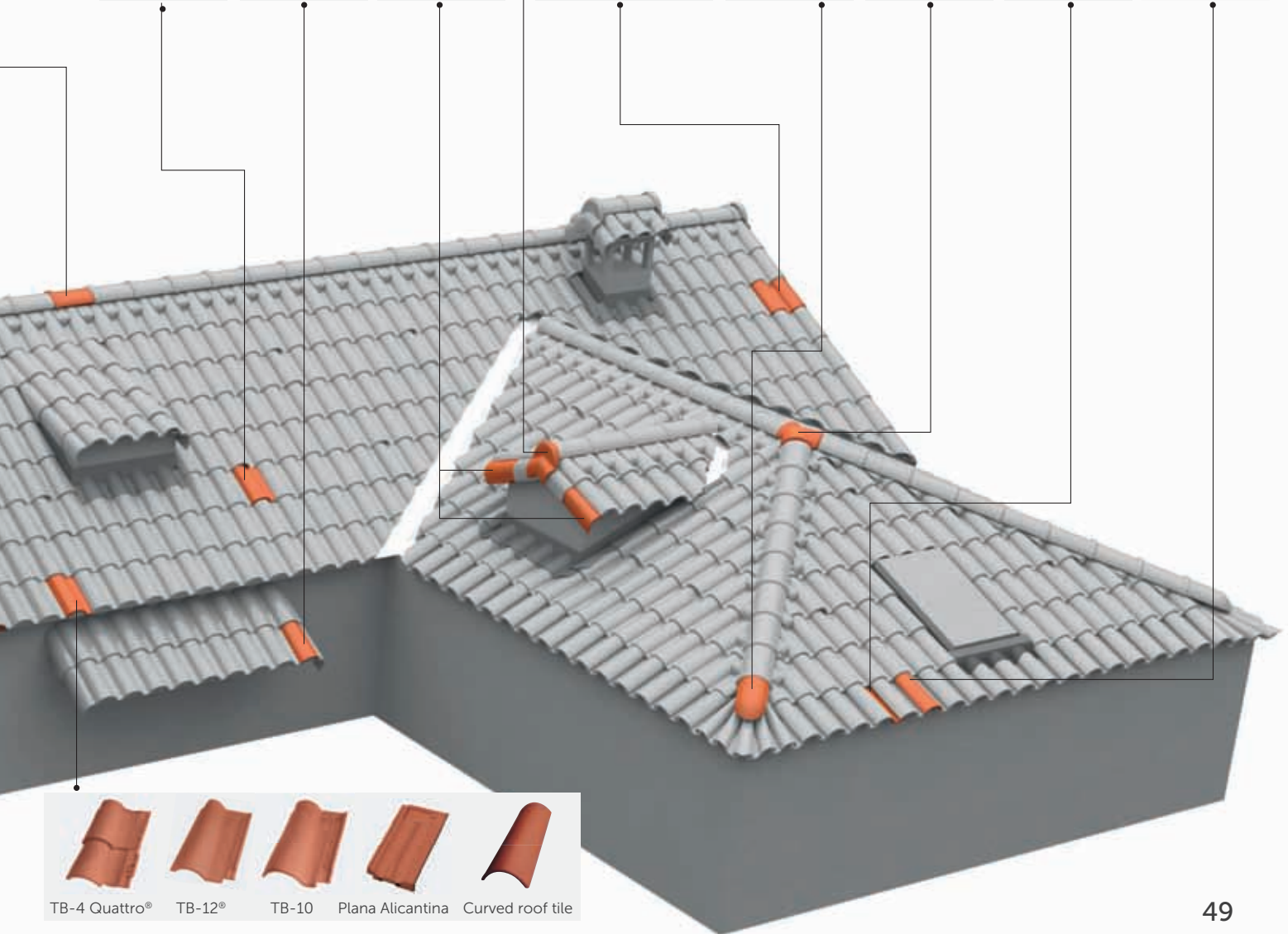
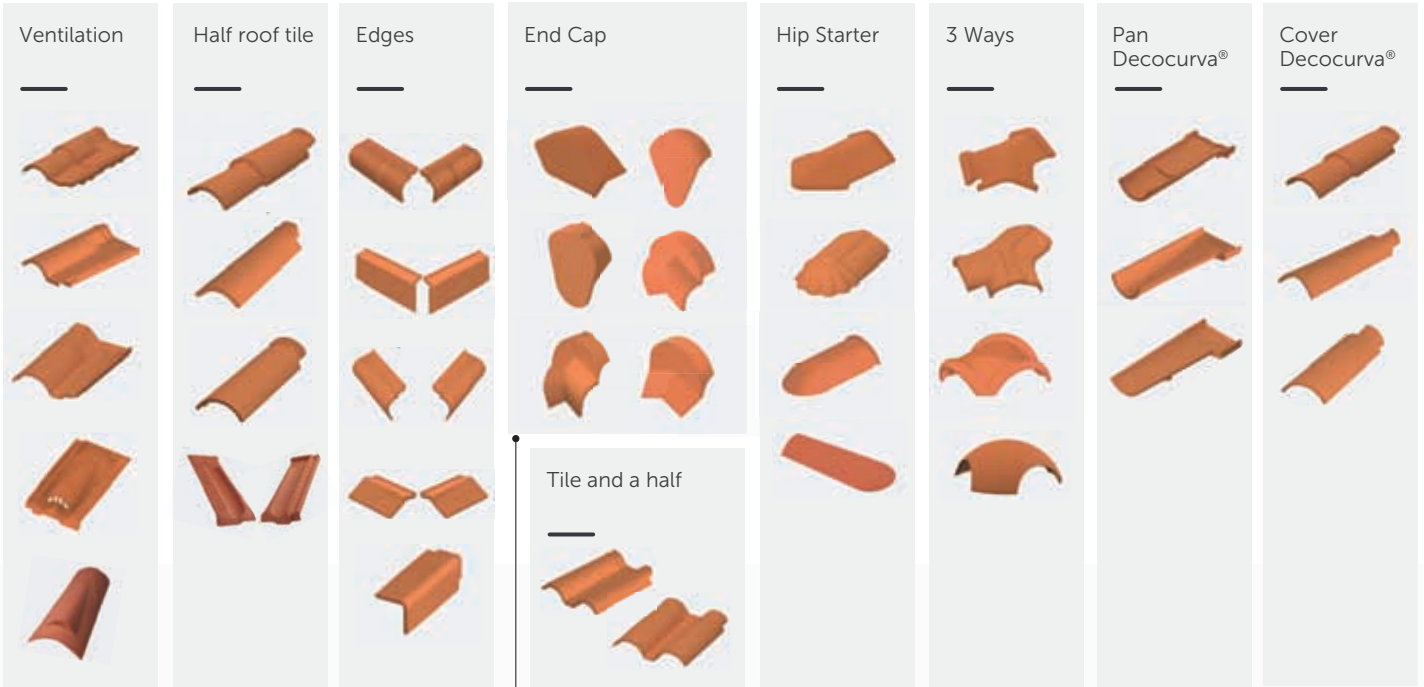
length	l	units per lineal meter	u./lm
width	w	external diameter	D
height	h	internal diameter	d
weight	Kg		

Escama accessories

<p>4.5 u./lm</p>  <p>"Gallon" Ridge 25 l 17.5 w 9.7 h 0.75 Kg</p>	<p>4,5 u./lm</p>  <p>"Gallon" Ridge with ball 25 l 17.5 w 13 h 0.85 Kg</p>	 <p>Winged Dragon End Ridge 40 l 15 w 16 h 1.95 Kg</p>	 <p>Achantus Leaf End Ridge 32 l 15 w 26.5 h 2.19 Kg</p>
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Accessories





Other accessories

Dimensions in cm

Approximate values*

length	l	weight	Kg
width	w	units per lineal meter	u./lm
height	h	base	B

Bretagna Ridge



Red Bretagna 1 Ridge
44.5 l 27 w 12.5 h 3.50 Kg



Brown Bretagna 1 Ridge
44.5 l 27 w 12.5 h 3.50 Kg



Red Bretagna 2 Ridge
36.5 l 25 a 12.5 h 3.15 Kg



Brown Bretagna 2 Ridge
36.5 l 25 w 12.5 h 3.15 Kg



Lugo Slate - Leon
Bretagna 2 Ridge
36.5 l 25 w 12.5 h 3.15 Kg



Lugo Slate - Leon
Bretagna 2 Hip Starter
42.8 l 25 w 12.5 h 3.45 Kg



Lugo Slate - Leon
Bretagna 2 Straight End Cap
6.0 l 25 w 27 h 2.40 Kg

Decoratives pieces



A Ball
21 B 31.5 h 4.3 Kg



B Arcon
20.5 B 34 h 3.15 Kg



C Pine cone
21.5 B 43 h 5.2 Kg



D Lollipop
16 B 48 h 4.0 Kg



E Galician Lollipop
16 B 37 h 1.54 Kg



F Tulip
16 B 31 h 1.9 Kg



G Tower
16 B 43 h 1.6 Kg



H Pigeon
26 B 29 h 1.25 Kg



Note: The colour reproduction is approximate, subject to change due to the natural colours of the clays. **Check** finishing colours for different accessories by telephone at: **+34 96 279 80 14**.

Other accessories

Hand decorated eaves

Useful decorated length

40 x 15 Curved roof tile: 20 cm

40 x 19 Curved roof tile: 20 cm

Celler® 50 x 21 Curved roof tile: 22 cm

Other formats are not available



Morella



Peñiscola



Almoradí



La Nucia



Altea



La Romana



Juggler



Wolf



Boat



Fish



Centenaria®

Centenaria® Sand TB-10



Centenaria® Sand TB-10



Centenaria® Ground TB-12®

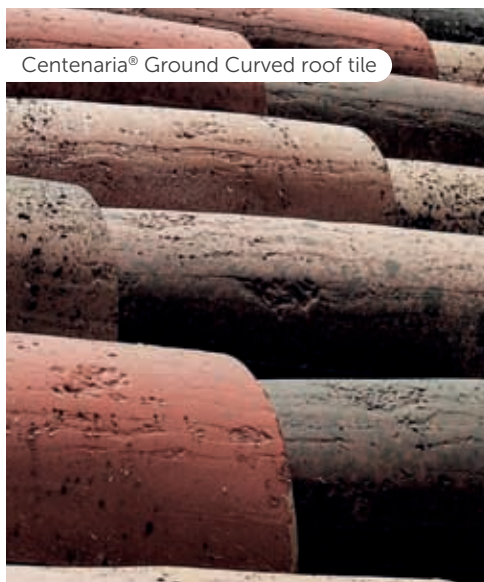


Centenaria® Mediterrania® TB-12®

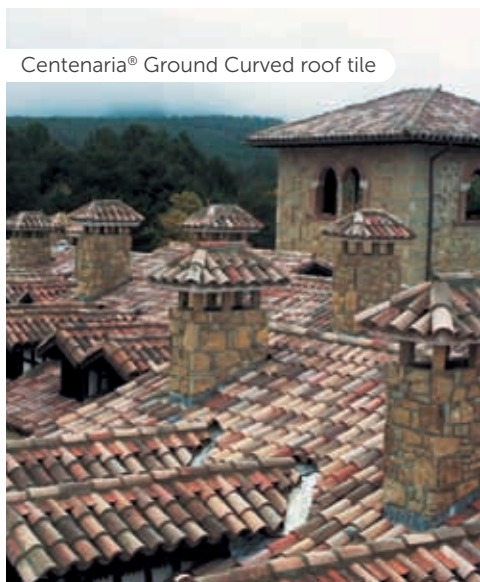


Note: The colour reproduction is approximate, subject to change due to the natural colours of the clays.

Centenaria®



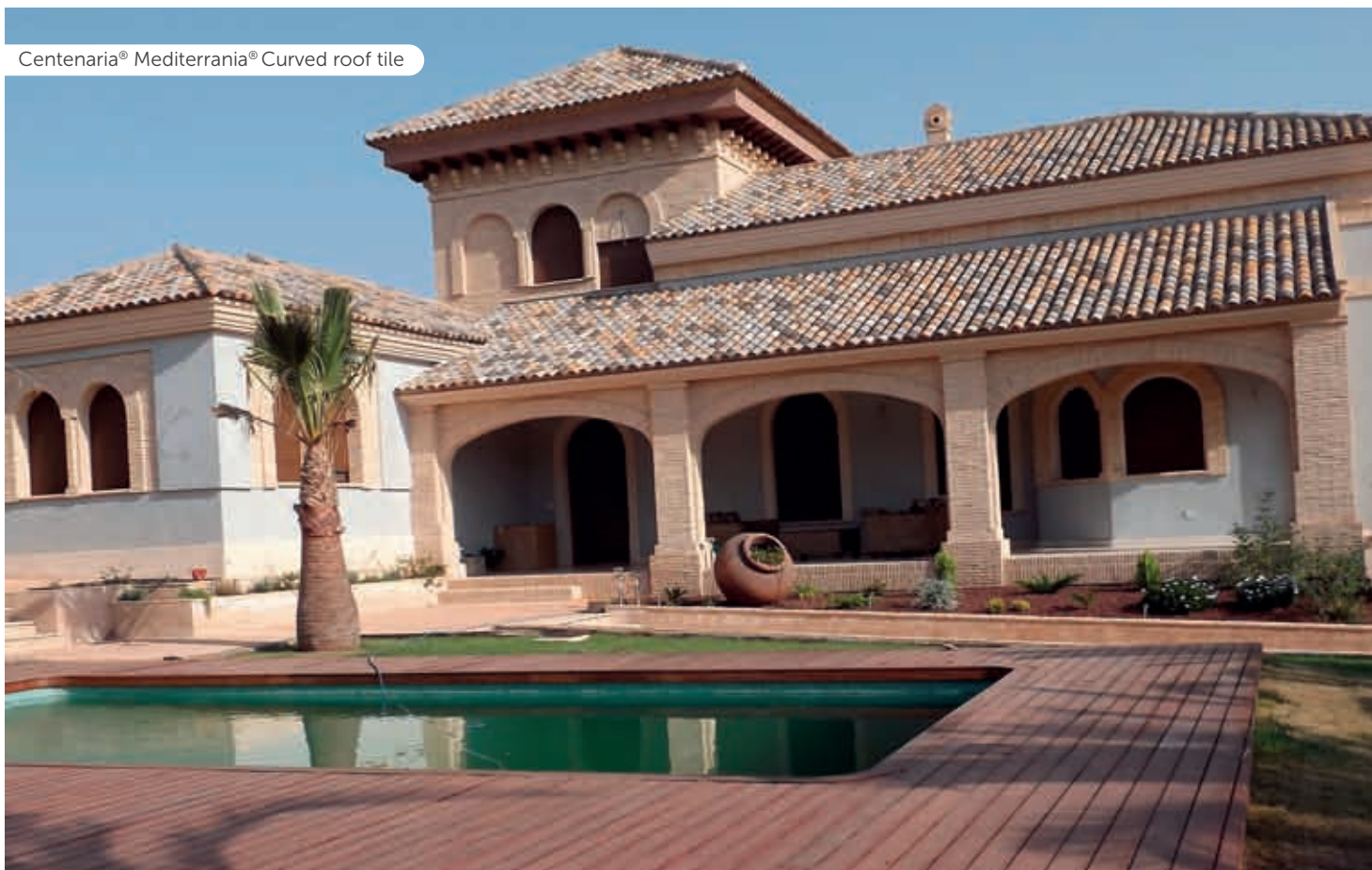
Centenaria® Ground Curved roof tile



Centenaria® Ground Curved roof tile



Centenaria® Mediterrania® Curved roof tile



Centenaria® Mediterrania® Curved roof tile

BORJAdecor®

TB-4 Quattro®

•

TB-12®

•

Plana Alicantina

•

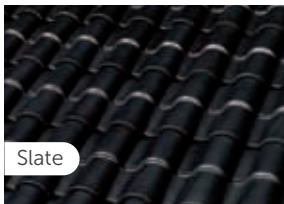
Curved roof tile

•

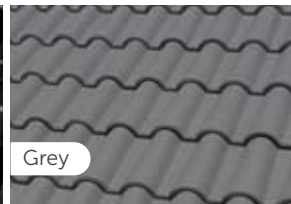
Escama



Tamizados



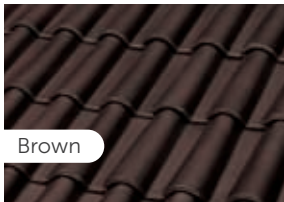
Slate



Grey



Green

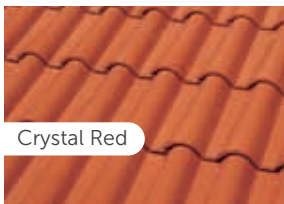


Brown

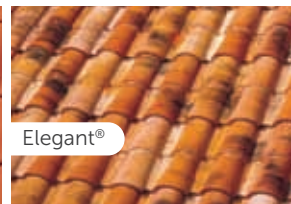


Blue

Crystal

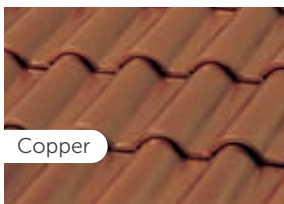


Crystal Red

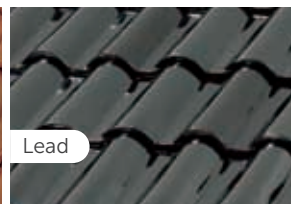


Elegant®

Metallic



Copper



Lead

White, Copper and Lead colours are produced only on one side colour.
Elegant® finish it is produced only in TB-4 Quattro® and 40x19 Curved roof tile.
 45x20 Curved roof tile is not available in BORJAdecor®.

Note: The colour reproduction is approximate, subject to change due to the natural colours of the clays. Check formats and accessories availability in BORJAdecor® at www.tejasborja.com or by telephone at: +34 96 279 80 14.

CRACKLE (surface crackling)

The superficial crackling can appear in some tiles with glazed application, concerning only the aesthetics and not the structure of the tiles, by what in the Standard regulation EN 1304 it is not considered to be a defect.

TB-4 Quattro®

• TB-12®

• Plana Alicantina

• Curved roof tile

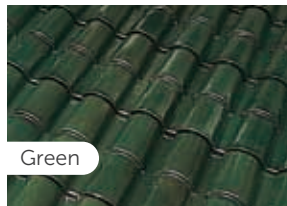
• Escama



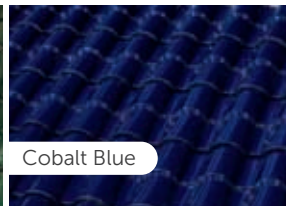
Glazed



Cognac



Green



Cobalt Blue



Alicante Blue



Carmin



White

TB-4 Quattro®



Irisados



Cognac



Green



Blue

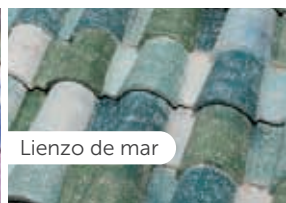
Inspiration



Ocre



Indigo



Lienzo de mar

BORJAdecor®



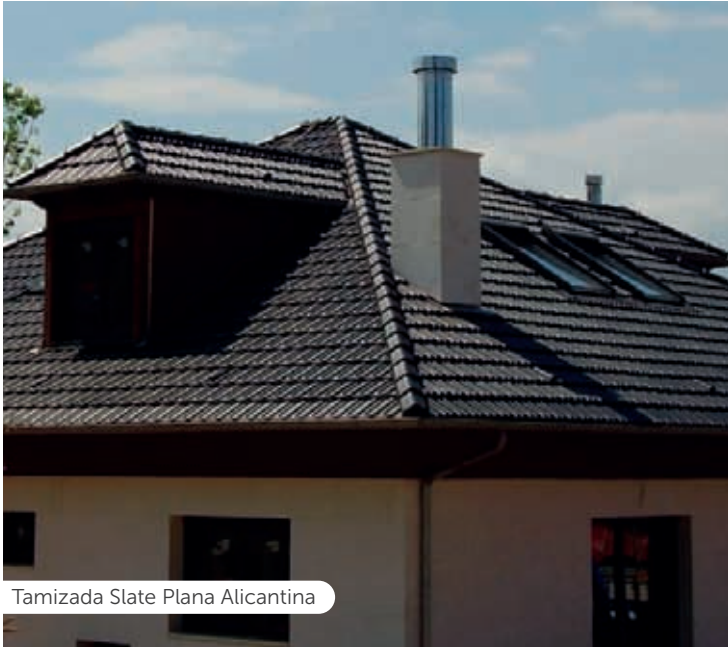
Glazed Cobalt Blue TB-12®



Irisado Green TB-4 Quattro®



Glazed Cognac TB-4 Quattro®



Tamizada Slate Plana Alicantina



Tamizada Grey Plana Alicantina



Irisado Cognac TB-4 Quattro®



Glazed Green TB-12®



I+D+i: SKIN-KER®

Find out more by reading the QR code.



Description

SKIN-KER®

Pressed roof tile

Exclusive **system** formed by large format **roof tiles** porcelaine that provides **high and excellent performance**.



SOCIEDAD ESPAÑOLA DE CERÁMICA Y VIDRIO

Main Features

- Length:** 66 cm
- Wide:** 44 cm
- Weight:** 7,35 Kg
- Thickness:** 11 mm
- Units:** 4.1 units per sq.m
- Overlap:** 7 mm
- Inter axis. Batten distance:** 662 mm



HIGH PERFORMANCE system

SELF VENTILATED / LIGHTER / MODULAR / DURABLE / HIGH THERMAL ISOLATION / SUITABLE FOR THE INSTALLATION OF RENEWABLE ENERGY SOLUTION / COMPATIBLE IN FAÇADES / LOW ENTRETIEN

Pitch	Waterproofing sheet type	Water steam permeability	Thickness	Weight
30% - 45%	Waterproof layer	Waterproof	0,52 mm	335 gr /sq.m.
> 45%	Waterproof and breathable layer	3000 gr/sq.m. /24h	0,45 mm	135 gr /sq.m.

Personalized advice

A professional team will advise you about the characteristics of the system and recommendations based on the climate zone, exposure and particular location of the Project.

The team will also calculate of the number and type of tiles, accessories and any other special detail needed according to the provided plans.

Finally will advise about the installation of the SKIN-KER® roof tiles.














Dimensions in cm

Approximate values*

length l weight Kg
width w units per lineal meter u./lm
height h

SKIN-KER® accessories

Accessories	2.22 u./lm			
	SK Ridge 52 l 31.2 w 10.7 h 4.10 Kg		SK Hip Starter 27 l 31.2 w 9.9 h 2.00 Kg	
				
				SK Under Ridge 16 l 31.2 w 9.7 h 1.20 Kg
	2.22 u./lm	2.70 u./lm		
	SK Hip 54 l 31.2 w 9.7 h 4.40 Kg		SK Edge left-right 45 l 17 w 12 h 2.22 Kg	
				
				SK End Cap 20 l 31.2 w 21.7 h 2.05 Kg
	SK 3 Ways 62.6 l 57.9 w 26.1 h 7.00 Kg		SK 4 Ways 62.6 l 62.6 w 30.4 h 7.46 Kg	1.52 u./lm
				
				SK Starter 66 l 7.2 w 7.2 h 2.20 Kg

Fixing system				
Stainless steel INOX				
		SK fixing bracket	SK eave clip	SK Hip clip
				
		SK under ridge clip	SK valley clip	SK clip

CATALOGUE

TEJAS BORJA **RESTORATION**

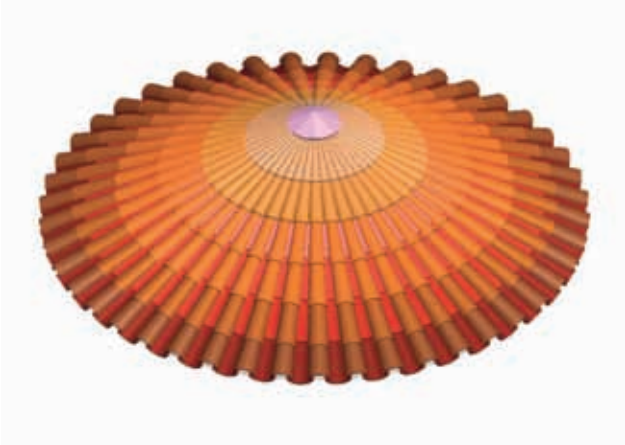
Projects

- 1 THE COMPANY
- 2 ROOF TILES
- 3 RESTORATION
- 4 ROOF QUALITY

Individual Solutions for your Projects

One of the fundamental tasks for the design and development department is offering clients the necessary tools and support to meet the individual

needs of personalised projects. This is the case study that is used in similar personalised projects.



Calculation and development of a domed roof using curved roof tiles, without cutting or partial use of pieces. Each individual circle is completed using a different size tile, gradually reducing in size to complete the dome in its highest point.

The two key factors used to determine the development of the roof finish are the diameter and the length of the roof surface.

Segoviana Roof Tile

A format inspired in the traditional roof tile used exclusively in Segovia.

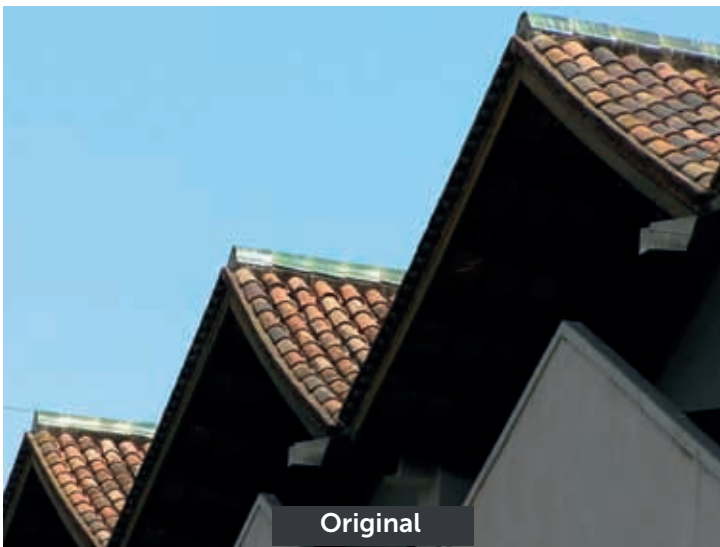


Reales Atarazanas de Barcelona

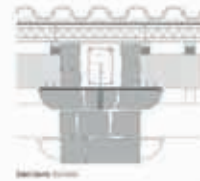
Granted **FIRST PRIZE** in the **HISPALYT ARCHITECTURE AWARD 2013** for the **Restoration of Reales Atarazanas in Barcelona**

The juries appreciate the careful renovation of the roofs of the building of cultural use and of great historical value.

The antique look of the roofs was achieved through a combination of Celler® Centenaria® curved roof tiles and ridge tiles of unique large format glazed in green, reproduced following the same design as the original both in form and colour.



Original



After restoration



Casa Alberola

Built in 1894, Casa Alberola was the first large seafront residential building, notable for its domed tower, finished in slate roof tiles, and skylights. Reformed using the Escama roof tile, in Metallic Copper and Cobalt Blue Glaze, inspired by the original design.



Church Building in Soria

Reformed using the Celler® 50 x 21 Centanaria® Tierra roof tile, the specifications of this project required the in-keeping of the new covering with the buildings original appearance.

Throughout the town, special care has been taken to use traditional materials such as the curved roof tiles, with similar textures and finishes to the originals. The Catalañazor church is a perfect example, where times seem to have stood still.



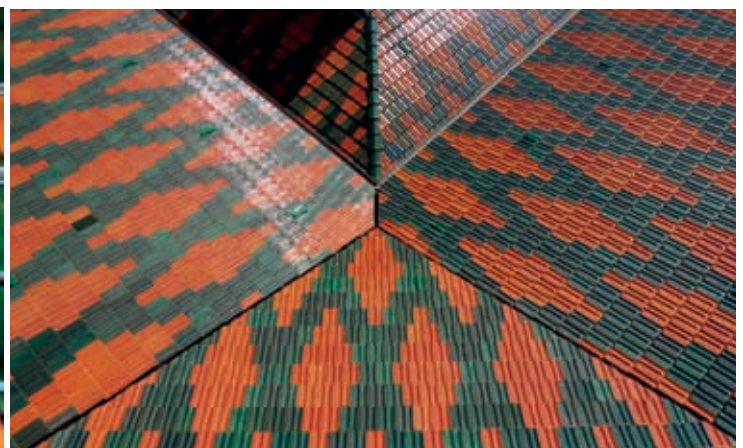
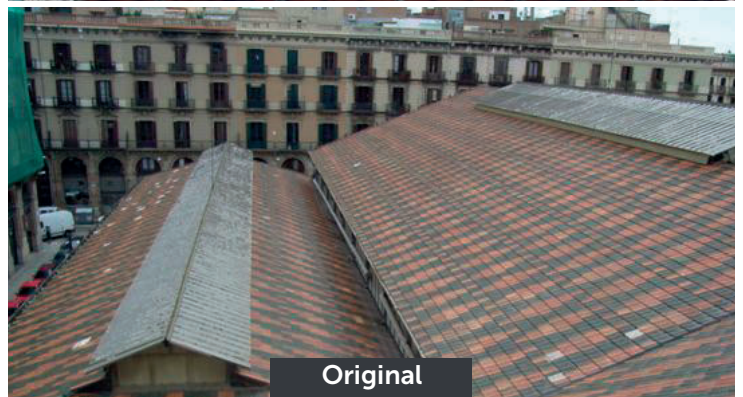
Mercat del Born

A perfect case study of the design, development and execution of the restoration of the Mercat del Born, comprising of over 10.000 m² of roofing over a three year period.

Working with architects, the initial stage of this Project focused on choosing samples of Plana Alicantina glazed roof tiles.

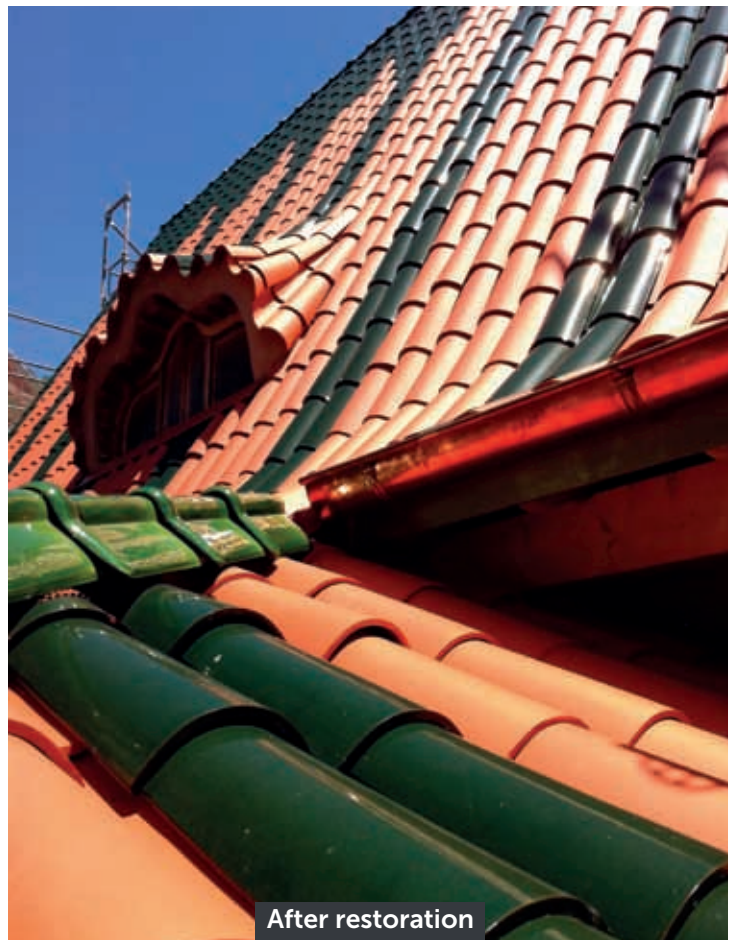
As it involved the varying sizes of each roof , with the central nave larger than the annexes, the technicians had to take into consideration the complications of resolving, not only the challenge of creating a uniform appearance, the quality of the glazes, dimensions of the roof tiles needed to create this look, and the pieces available , whilst maintaining at the same time the overall aesthetic appearance of the original design, reproducing the original geometric patterns and colour combinations, as required by the architects.

The overall proposal, using Tejas Borja Plana Alicantinas tiles and the corresponding accessories, in various glaze tones of 'Honey' y 'Green', was approved by the local council in Barcelona, thanks to the work of the design and development department and the quality of the finished product as guaranteed by Tejas Borja.



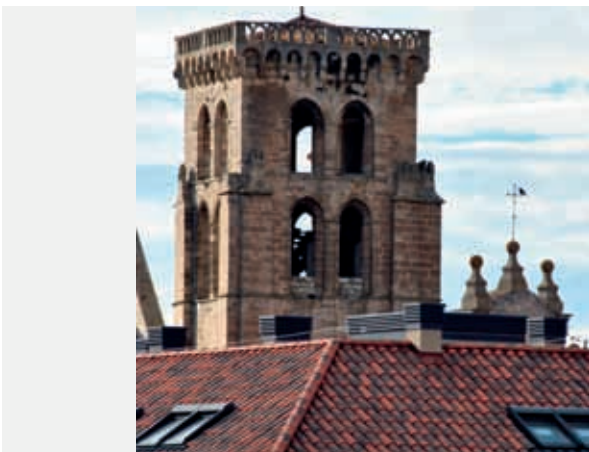
House in Barcelona

Restoration done using Celler® 50x21 roof tile in Green glaze colour and Step Celler® 50x21 in red colour.



Residential building in Burgos

Restoration of, with roofing using Celler® 50 x 21, aged as per design specifications, and Step Celler® 50 x 21 in Red, dry fixed.



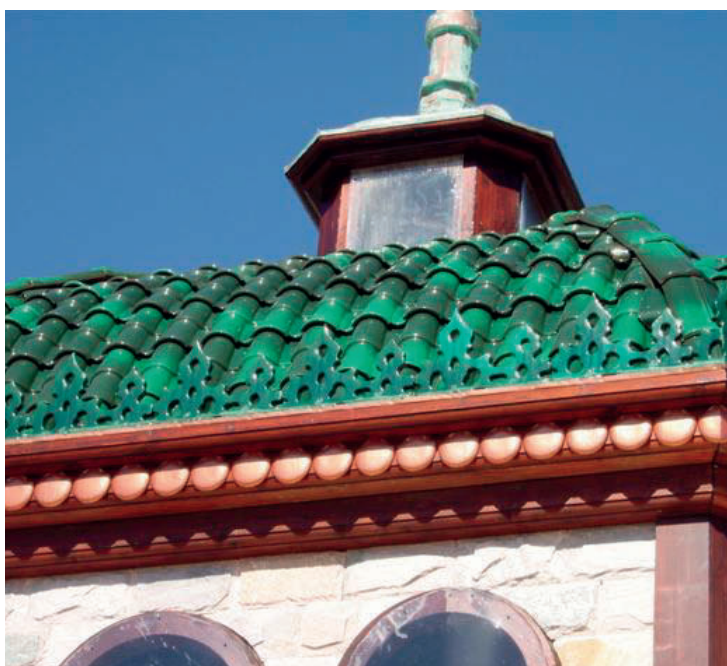
Buen Amor Castle

Constructed in the 15th century over an older 11th century building. Now fully restored in gothic style. The last restoration included the 600m² roof. The new curved tile Celler® Centenaria® Grown, maintains the style of the original building, where roof and walls form part of the traditional appearance of this historic building.



Crest ridge

From pieces that we were provided, the entire piece for the rehabilitation of a Manor House located in the province of Lugo it is reproduced.



CATALOGUE

TEJAS BORJA **ROOF QUALITY**

Ventilation

Pitch

- 1 THE COMPANY
- 2 ROOF TILES
- 3 RESTORATION
- 4 **ROOF QUALITY**

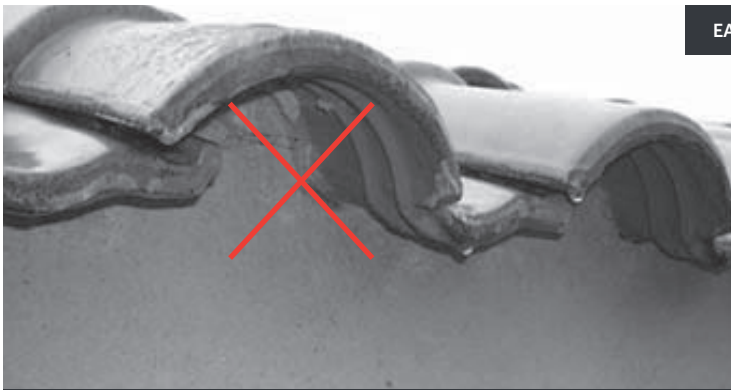
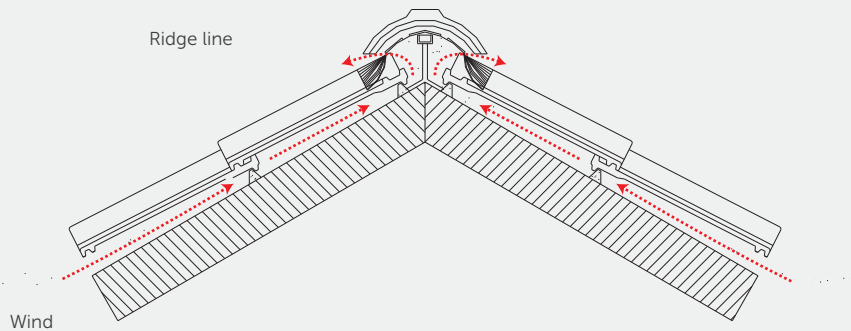
THE QUALITY OF THE ROOF DEPENDS ON THE QUALITY OF THE TILES AND INSTALLATION

Tejas Borja S.A.U. roof tiles are manufactured according to the specifications cited by the regulations UNE EN 1304/EN 539-1 / EN 539-2, and should be installed following UNE 136020* regulations and the instructions given by **Tejas Borja***.

Ventilation

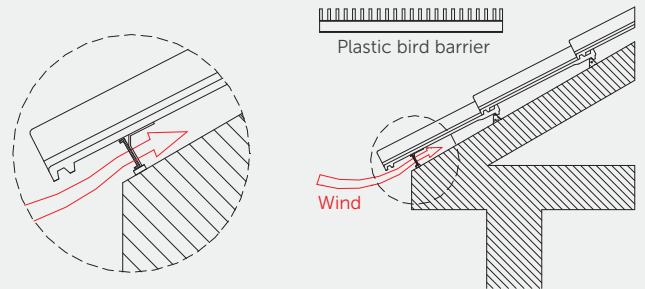
WHY IS IT NECESSARY TO VENTILATE THE UNDERSIDE OF THE TILES?

Proper ventilation creates an **air current** which circulates below the roof tiles, **avoiding damp** and the accumulation of water.

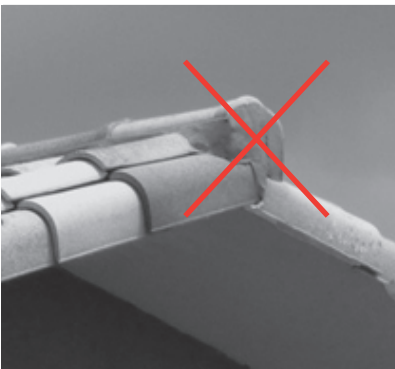


Solid NON CONFORMING

EAVE

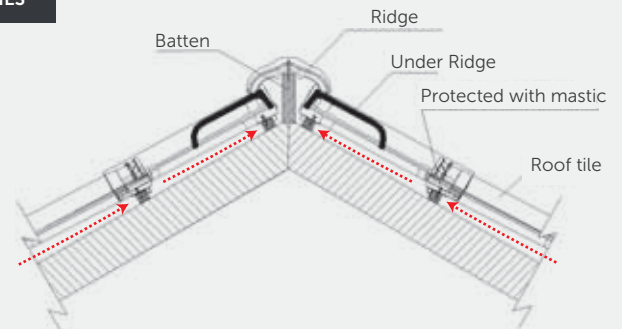
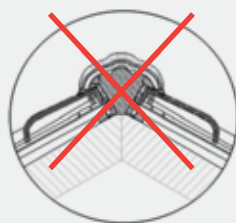


Free air entrance CONFORMING



Solid NON CONFORMING

RIDGE and HIP LINES

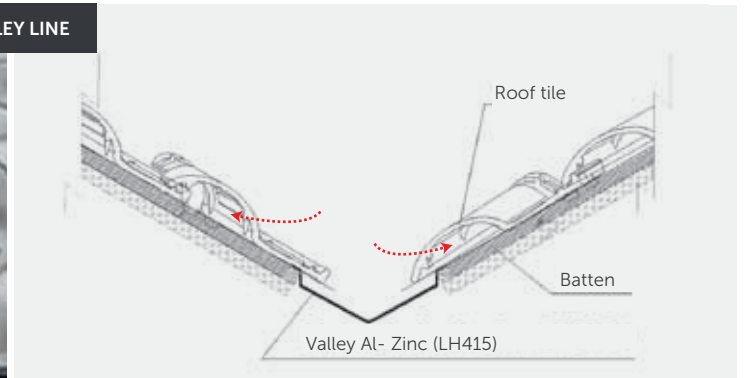


Free air exit CONFORMING



VALLEY LINE

Solid NON CONFORMING

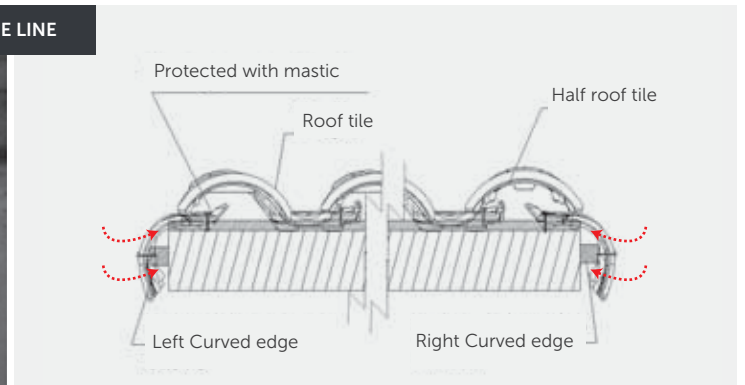


Free air entrance CONFORMING



EDGE LINE

Solid NON CONFORMING



Not solid, no mortar CONFORMING

Pitch

WHY IS IT NECESSARY TO CONSTRUCT THE ROOF WITH THE CORRECT PITCH?

The pitch of the roof allows for the fast drainage of water and avoids saturation.

It's crucial that the climate conditions and the length of the gables are taken into consideration when calculating the necessary gradient in each project.

The correct gradient will maintain the minimum pressure needed between the lower eaves and the upper layers (ridge and hip lines) of the gables, generating the necessary **air current** to **ventilate the tiles**.



Example of a poorly ventilated roof

The joints in the roof: eaves, ridges, hips, valleys, laterals, etc are critical points, and should **never** be covered or filled-in with mortar or similar products, allowing a **continuous air flow** to avoid damp.

Consult Tejas Borja Specifications at www.tejasborja.es, accessing our Professional Area/ Technical manual. Copies of the UNE 1304/ EN 539-1 /EN 539-2 and UNE 136020 regulations can be obtained through www.aenor.es, UNE regulations catalogue.

Note: The images presented in this catalogue are a representation of colours in projects, and not installation guides.



After **more than 114 years** of creation, design and production of ceramic roof tiles Tejas Borja is granted the **"Empresa Centenaria" (Centennial Company) Award** for its continuous research and adaptation to the constantly developing global market.

We are committed daily to maintain the standards and design that differentiates our ceramic roof tiles from others in the market. Conscious of the necessity to offer a product meeting the highest of requirements and produced using the latest technology, we pride ourselves on the quality that our clients have come to expect from Tejas Borja.


TEJAS BORJA
Unique since 1899

Francisco Ramón Borja