

FERIANE®



100% Profitable - 100% Comfort



Large format - Bold-profile tile



≈ 12/m²





FERIANE®

- ✓ The largest longitudinal assembly clearance in its class with 4 cm
- ✓ Aesthetics 100% authentic
- ✓ Very large curve
- ✓ Comfort and stability for installation

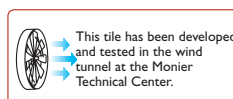
TECHNICAL CHARACTERISTICS

Type	Clay roof tile, single lock and double lapping, interlocking for low pitch roofs
Number of tiles per m ²	≈ 11,3 to 13,2
Unit weight	≈ 4,1 kg
Weight per m ²	46,3 to 54,1 kg
Overall length	≈ 48 cm
Overall width	≈ 29 cm
Linear cover	22 to 23 cm
Theoretical gauge	34,5 to 38,5 cm
Longitudinal fitting tolerance	4 cm*
Transversal fitting tolerance	1 cm*
Linear meter of battens/m ²	2,6 to 2,9 ml
Laying	Laid with straight joints left to right
Product standard	NF EN 1304
Application standard	NF P 31-202 [DTU 40.21]
Silicon product	An addendum is required for seals
Number of tiles per pallet	180
Weight per pallet	738 kg

PRESCRIPTION RECOMMENDATION

The tile will be in Terracotta, from the large-format bold-profile tile family, simple lock and double lapping, more or less 12 per square meter, type FERIANE® from Monier or similar. Its game of usual assembly shall be 4 cm in longitudinal and 1 cm in transversal. It shall be laid straight joints from left to right, on battens according to the standard of NF application NF P 31-202 [DTU 40.21]. Its installation shall be carried out using all parts specially designed for dry mortarless laying of ridges and edges as specified in the DTU.

GUARANTEE



* Usual fitting tolerance stated apply from actual average gauges and widths checked on delivery as per DTU.

FDES / EDP CLAY TILES

For any projects developed within the context of an HQE® approach, an Environmental and Health Declaration Sheet for this tile is available on request.

COLOR KEY



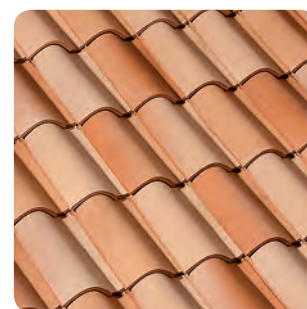
Red (1B)



Silvacane Litoral (6A)



Colorado (8W)



Atlantic Mixed Shades (3X)

The firing process of the clay may produce slight differences in colour. To obtain a roof with a homogeneous appearance, we recommend mixing tiles from different pallets. The printing processes do not necessarily guarantee a faithful reproduction of colours. Ask to see them in situ. These values are given for information purpose only and are likely to change.

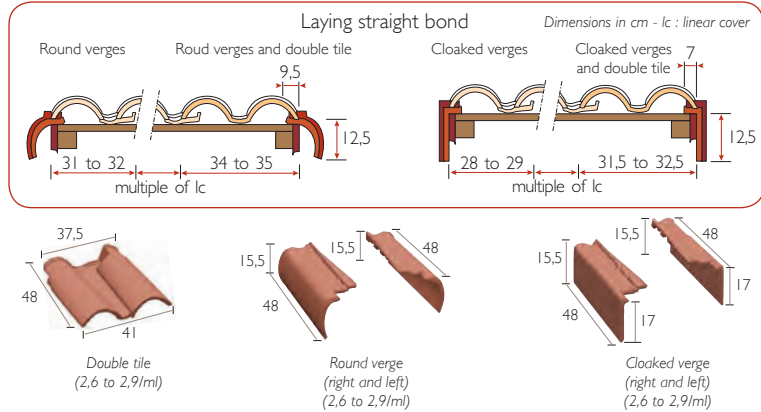
THE MAIN FEATURES

VERGES

The wide range of fittings offers choice of two verge finishes:

- round verge,
- cloaked verge,

Verges direction is determined by placing them facing the pitch. A neoprene washer is used for fastening.

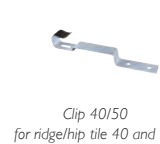
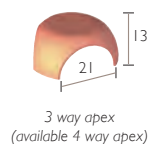
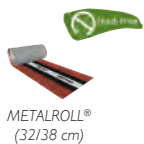
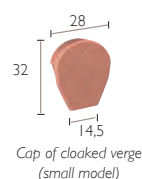
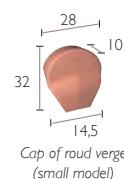
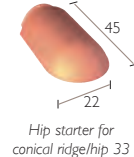
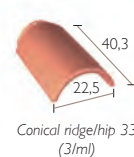
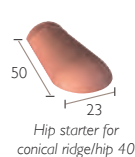
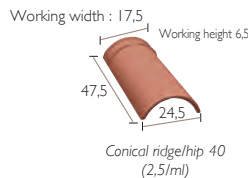
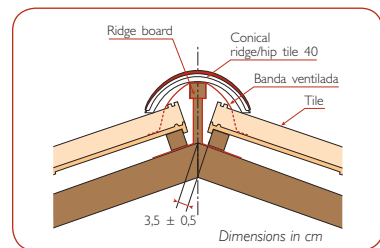
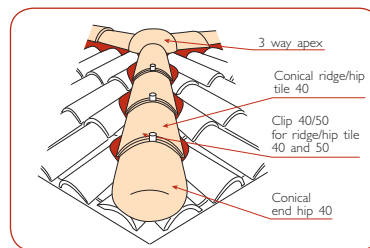


HIP / RIDGE

The range offers 3 alternatives style:

- Conical ridge tile/hip 40,
- Conical ridge tile/hip 33,
- Half round ridge / hip tile 50.

Monier recommends laying dry with ventilated weather stripping in a roll. This system enables the ridge and hip to adapt to the nature movements of the roof. The ridge courses are made by cutting the tiles closest to the ridge board. All ridges and hips must be fastened with a clip or a screw. The dry ridge/hip is quick to lay, provides good ventilation, and makes future work easier.



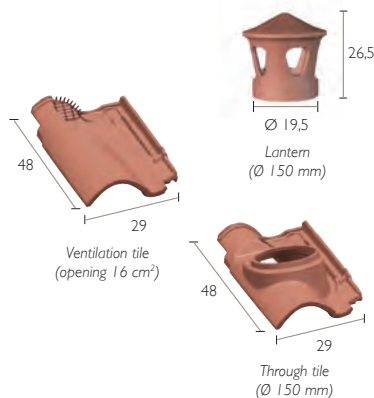
AERATION, VENTILATION

The underside of the tile and their support must be ventilated. This ensures overall correct behaviour of roofing components over time.

The use of ventilation tiles is recommended at the upper and lower parts of the roof. The total of ventilation openings must be distributed equally between lower part of the roof slope and near the ridge. Humid or foul air outlets from the ventilation or extraction of living areas by forced mechanical ventilation or other systems, must be routed out of attic spaces.

For further information on these two points, please refer to the DTU in force.

Preferably, exhaust tiles are to be located at the top of the slope.



The design of the FERIANE tile ensures a bottom ventilation of 310 cm²/ml.

Note : for better performance, the through tiles must be laid as much as possible near ridges.

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	Type de comble	Section totale de ventilation ^(a)
Attic unfinished without underlay		$S = 1/5000$
Attic unfinished with underlay		$S_1 = 1/5000$ $S_2 = 1/3000^{(b)}$
Roof insulated without underlay		$S = 1/3000$
Roof insulated with underlay		$S_1 = 1/5000$ $S_2 = 1/3000$
Roof insulated with underlay highly permeable to water vapor and presence a continuous and independent vapor		$S = 1/5000$

S characterizes the section of the orifices in relation to the volume to be ventilated between insulation and roofing elements.

S1 characterizes the section of the orifices in relation to the volume to be ventilated between screen and cover elements.

S2 characterizes the section of the orifices in relation to the volume to be ventilated between insulation and screen ventilated soffit.

(a) Related to the surface area projected horizontally
(b) Except for Spirtech® type breathing roof underlays.

PUNTOS SINGULARES

VALLEY AND EAVES

All tiles on the eaves must be fastened.

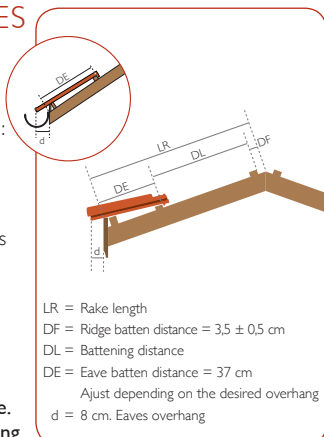
Please refer to the DTU in force :

- Europanneton® TER Inox,
- Clip E for eaves.

Laying of an eaves comb prevents rodent and bird intrusion. It is placed at the rake bottom, along the valley.

The dimension DE mentioned by Monier is given as an example. This dimension will vary according to several parameters :

cant height, gauge, roof pitch and overhang d, and may be adjusted to achieve the required overlap. The interlocking part (water flow) must be taken into account when defining dimensions DE and d.



Clip E



Eave comb (100 mm)

UNDER-ROOF



LAYING TILES IN A SQUARE LAYOUT

For violent winds, MONIER recommends going beyond the DTU recommendation and therefore fastening all tiles. (D.T.U. 40.21 of october 2013)

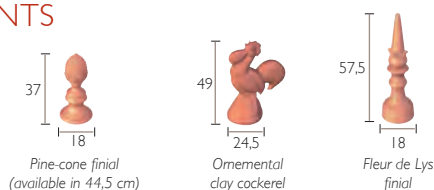
The wind zones considered are those designated by the wind loads code and the sites by the reference building code recommendations. (NF EN 1991-1-4/NA).

On verges and eaves, all tiles must be fastened.

Use of Europanneton® TER Inox recommended by Monier.



ORNAMENTS



THE REGULATIONS

MINIMUM PITCH TABLE IN %

MINIMUM ACCEPTABLE PITCHES AND OVERLAP IN % (NO UNDERLAY)

Sites	Zones								
	Rake length (ground plan)								
	up to 6,50 m			6,50 m to 9,50 m			9,50 m to 12 m		
	Zone I	Zone II	Zone III	Zone I	Zone II	Zone III	Zone I	Zone II	Zone III
Sheltered	22	24	27	26	28	30	27	30	35
Normal	25	27	30	28	32	36	32	35	40
Exposed	33	37	40	35	39	43	42	45	50

MINIMUM ACCEPTABLE PITCHES AND OVERLAP IN % (WITH UNDERLAY)

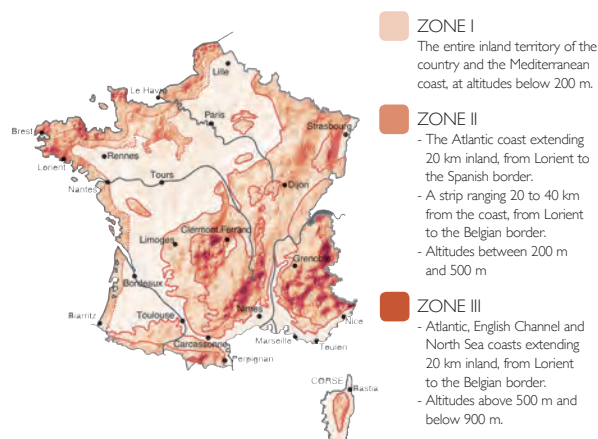
Sites	Zones								
	Rake length (ground plan)								
	up to 6,50 m			6,50 m to 9,50 m			9,50 m to 12 m		
	Zone I	Zone II	Zone III	Zone I	Zone II	Zone III	Zone I	Zone II	Zone III
Sheltered	19	21	23	22	24	26	23	26	30
Normal	21	23	26	24	27	31	27	30	34
Exposed	28	32	34	30	33	37	36	39	43

These data are applicable to slopes whose horizontal projection does not exceed 12 m. Building code recommendations.

MINIMUM SLOPE ZONE

France is divided into 3 zones where minimum slope calculations apply (in conjunction with wind-rain)

Note : If in doubt regarding which zone applies, please refer to the definition of the zones below.



DEFINITION OF SITES ACCORDING TO THE DTU

SITES	DEFINITION
Sheltered	Low ground, entirely surrounded by hills which protect it against all wind directions. Site partially bounded by hills in the direction of the most violent winds that provide protection against winds in this direction only.
Normal	Plain or plateau with slight vertical intervals, whether extensive or not (valleys, undulations).
Exposed	Near the sea: inland to a distance of 5 km; the tops of cliffs, islands or narrow peninsulas, estuaries or sheltered bays and ria. Inland: narrow valleys into which the wind is channelled, isolated and high mountains (for example: Mont-Aigoual and Mont-Ventoux) and certain mountain passes.

This breakdown into three zones should not be confused with the breakdown into Snow and Wind regions given in the NV (Snow and Wind) rules.

To prevent ingress of powder snow, the DTU recommends the use of an underlay.

This use is also advocated by SNEST in order to catch and lead down to the gutter any small amounts of water as well as to protect against the ingress of dust or soot.

MONIER reserves the right to change the technical characteristics of its range.



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