

Marseille

The historic tile



BMI **MONIER**

CLAY TILE
Large-format - Low-profile tile

monier.fr

Marseille

- The interlocking tile from the 19th century
- Variable gauge: a great flexibility of laying
- The "Bee" mark exclusive to Monier



Overall dimensions in cm

≈13/m²



TECHNICAL CHARACTERISTICS

Type	Clay roof tile large format, low-profile, Treble lock and double lapping, variable gauge
Number of tiles per m ²	≈ 12,5 to 14
Variable gauge	32 to 36 cm
Linear cover	22,1 to 22,5 cm**
Linear meter of battens/m ²	2,8 to 3,2 ml
Gutter ventilation section	0 cm ² /ml
Tile interlocking category	Classe G1
Unit weight	≈ 3.4 kg
Weight per m ²	42.5 à 47.6 kg
Number of tiles per pallet	240
Weight per pallet	820 kg
Production site	Roumazières
Laying	Broken bond from right to left
Silicone product	An additive is required for sealing
Product standard	NF EN 1304
Application standard	NF P 31-202 [DTU 40.21]
Minimal gradient*	30 % / 16°70' (Zone 1, sheltered site with underlay)

* See the gradient table on the back of this document.

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

PRESCRIPTION RECOMMENDATION

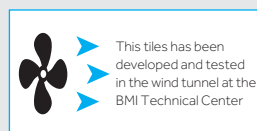
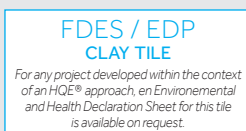
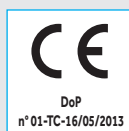
The tile will be in terracotta from the large-format low-profile tile, treble lock double lapping and variable gauge, 12,5 to 14 per square meter, type MARSEILLE from MONIER or similar.

Its fitting tolerance should be 4 cm long and 0,4 cm transverse.

It will be laid broken bond from right to left, 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.

GUARANTEES



COLOURS



Antique Red (7E)



Rustique Brown (5G)



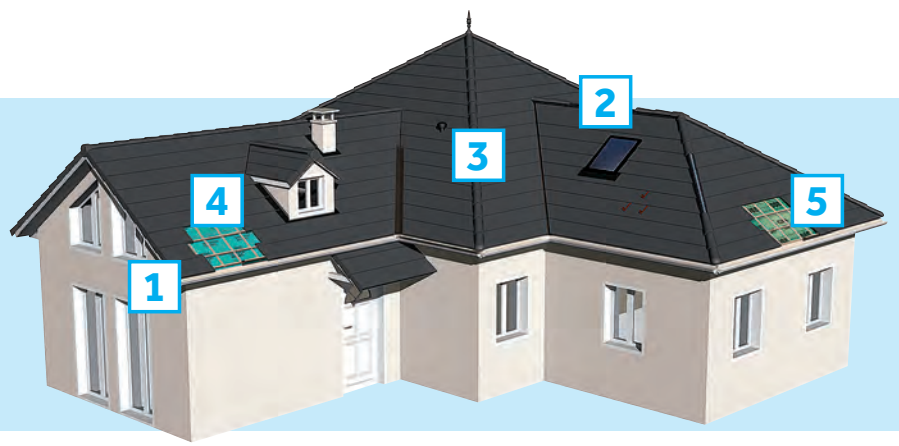
Red (1B)



Valmagne Copper (6C)



As a pioneer in the development of complete roofing systems, Monier has designed an innovative range according to the rules of the trade: terracotta and concrete tiles, roofing components and external thermal insulation. The professionals at Monier are authentic in their relationships and offer support and advice for their customers.

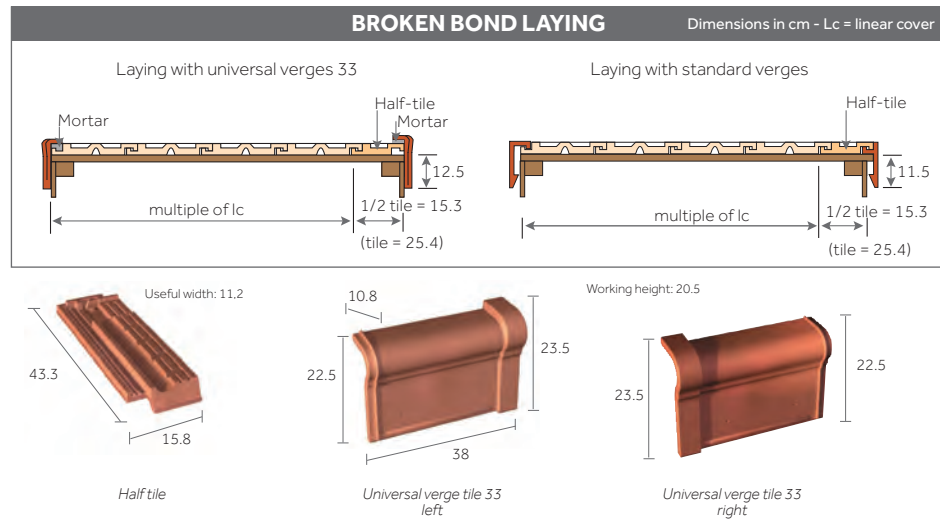


1 TRANSVERSE DISTRIBUTION ACCORDING TO EDGE ASSEMBLY

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

- universal verge tile 33,
- standard verge right or left.

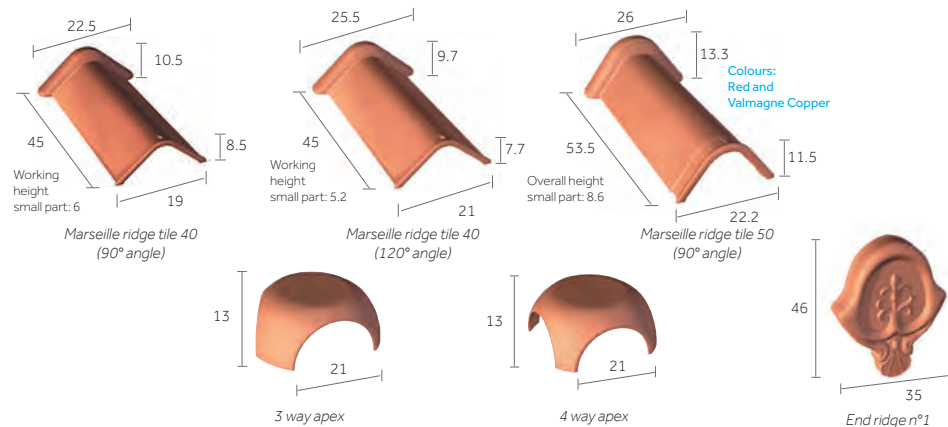
A neoprene washer is used for fastening.



2 RIDGES, HIPS & END CAPS

The ridge courses are made by cutting the tiles closest to the ridge board.

All ridges and hips must be fastened with a screw.



3 AERATION, VENTILATION & ILLUMINATION

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.

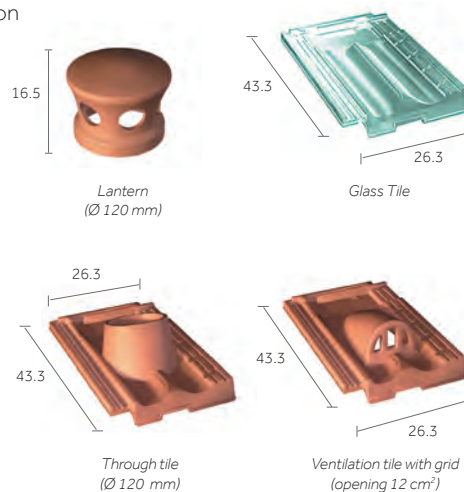
The total of ventilation openings must be distributed equally between lower part of the roof slope and near the ridge.

Ventilation in the upper part can be provided by the ventilated closure, at the bottom by the ventilated eaves batten.

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.

The ventilation sections mentioned take into account values standardized by the latest building code regulations.

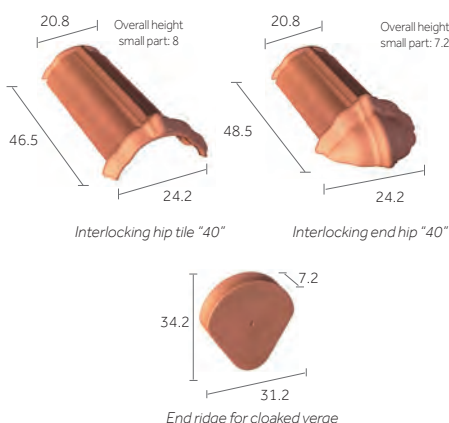
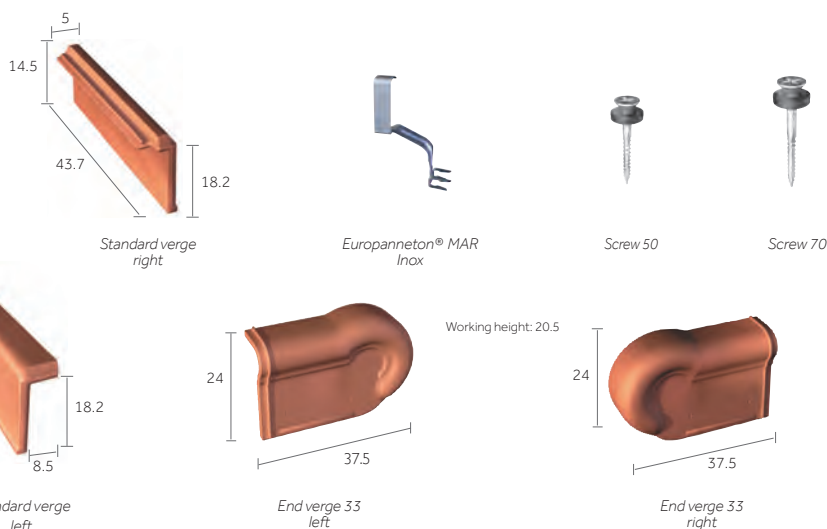
Preferably, exhaust tiles are to be located at the top of the slope.



Type of attic	Total ventilation section ^(a)
Roof space not fitted out without barrier	$S = 1/5000$
Roof space not fitted out with barrier	$S1 = 1/5000$ $S2 = 1/3000^{(b)}$
Insulated sloping section without barrier	$S = 1/3000$
Insulated sloping section with barrier	$S1 = 1/5000$ $S2 = 1/3000$
Insulated sloping section with barrier highly permeable to water vapour and presence of continuous, independent vapour barrier	$S = 1/5000$

S marks the section of openings related to the volume to be ventilated between insulation and roofing elements.
S1 marks the section of openings related to the volume to be ventilated between barrier and roofing elements.
S2 marks the section of openings related to the volume to be ventilated between insulation and barrier ventilated underneath.

The use of an HPV screen necessarily implies the implementation of a continuous vapor barrier on the underside of the insulation.



MONIER RECOMMENDS DRY ASSEMBLY WITH VENTILATED CLOSURE MATERIAL ON A ROLL.

The dry assembly of a ridge/hip is quick to implement, guarantees ventilation and allows for later intervention.

This system allows the ridge and the hip to adapt to the roof's natural movement.

WAKAFLEX® is the universal waterproofing solution for the treatment of individual roof areas. It is very easy to use and can be applied cold without welding.



DISTRIBUTED OVER THE LENGTH OF THE SLOPING SECTION

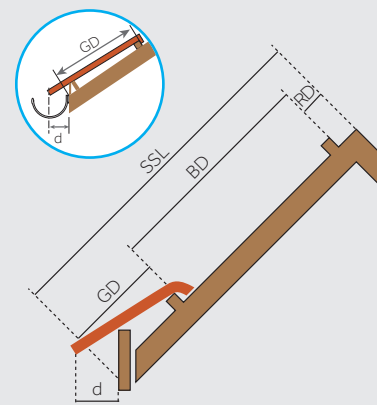
All tiles on the eaves must be fastened. Please refer to the DTU in force :

• Europanneton® MAR Inox

Laying of a ventilated eaves batten (ventilation 199 cm²/ml) on the tilt batten guarantees linear ventilation in the lower section in accordance with the DTU's recommendations.

The dimension GD mentioned by Monier will vary according to several parameters : height, gauge, roof pitch and overhang d, and may be adjusted to achieve the required overlap.

The interlocking part (water flow) must to be taken into account when defining dimensions GD and overhang distance (d).



SSL = Sloping Section Length

RD = Distance from batten to ridge = 4.5 ± 0.5 cm

BD = Battening distance = 32 to 36 cm

GD = Distance from batten to gutter

This dimension is to be adjusted according to the projection of the gutter tile (dimension d) and the roof gradient.

d = 8 cm. The gutter projection is determined according to the type of gutter. The tile nib must be aligned ± 1 cm with the gutter

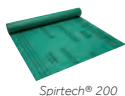


Ventilated eaves batten without comb
(L 1 m - H 30 mm)

4 UNDERLAYS

The underlays are mainly for:

- to ensure a complementary seal and protect the underlying premises against the penetration of powdery snow, dust, pollen, soot and water infiltration,
- to preserve the performance and the durability of the insulation in under face,
- allow to lower the slopes minimum cover when the DTUs provide for it.



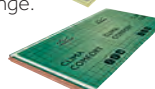
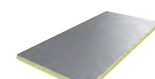
For more information, consult the Monier General Catalog

5 OUTDOOR INSULATION SARKING

The sarking, thermal insulation process by the outside dedicated to the attic or developable, is to enhance the roof to insert a thin layer of insulation.

Monier offers a complete range:

- CLIMA FIRST®, quality at the best price,
- CLIMA COMFORT®, the high performance range.



For more information, consult the Monier General Catalog

LAYING TILES IN A SQUARE LAYOUT

The attachments must be compliant with the requirements described in paragraph 5.4 of the D.T.U. 40.21 of october 2013.

The regions in question are the ones on the wind map (reference NF EN 1991-1-4/NA).

The sites exposed to the winds shown on the wind map correspond to the situations defined in Appendix B of the D.T.U. 40.21 of october 2013.



All edging and guttering tiles are attached.

Use of Europanneton® MAR Inox recommended by Monier.

For violent winds, Monier recommends going beyond the DTU recommendation and therefore fastening all tiles.

THE ADVICE OF THE PRO

The half-tile is used on both the right and left, you will notch the nose of the tile at the overlap with the half-tile to ensure a good assembly. This operation is only done on the right bank line.

THE REGULATIONS

MINIMUM PITCH TABLE IN %

MINIMUM ACCEPTABLE PITCHES IN % (WITH UNDERLAY)

Zones Sites	Zone 1	Zone 2	Zone 3
Sheltered	30	30	45
Normal	35	45	50
Exposed	50	60	70

MINIMUM ACCEPTABLE PITCHES IN % (NO UNDERLAY)

Zones Sites	Zone 1	Zone 2	Zone 3
Sheltered	35	35	50
Normal	40	50	60
Exposed	60	70	80

These data are appropriate for rakes the ground plan of which does not exceed 12 m.

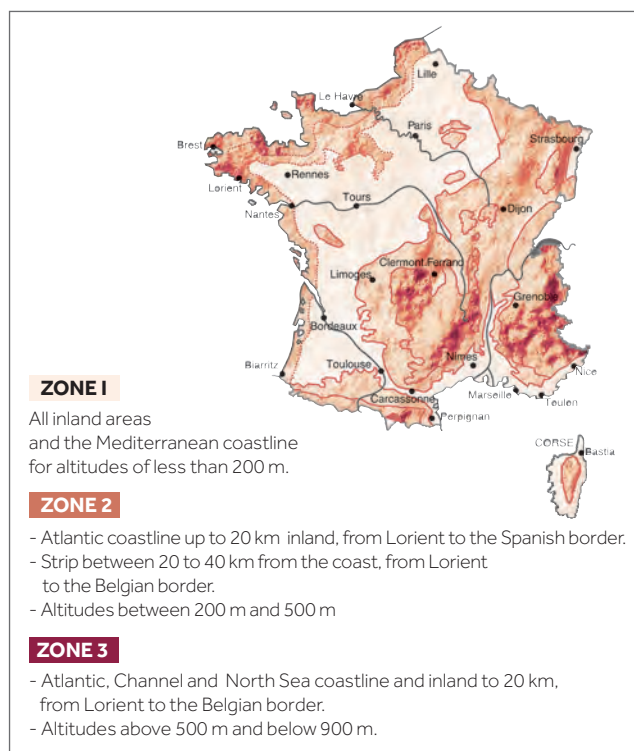
Building code recommendations.

Snow Protection: Revised 40.2 DTUs indicate: the protection against powder snow by the installation of a underlay screen must be specified in the specific documents of the market. Its implementation falls under DTU 40.29.

ZONES FOR THE APPLICATION OF MINIMUM PITCHES

France is divided up into 3 zones for the application of minimum pitches (with regard to wind/rain concomitance).

Note: the map below is indicative, only the definitions areas prevail.



DEFINITION OF SITES ACCORDING TO THE DTU

SHELTERED SITUATION

Bottom of bowl bordered of hills on all its periphery and thus protected for all the directions of the wind.

NORMAL SITUATION

Plain or plateau of great extent that may have minor slopes of less than 10% slope (undulations, undulations).

EXPOSED SITUATION

In the vicinity of the sea: The coastline on a depth of about 5 km, the cliff tops, islands or narrow peninsulas.

Inside the country: The narrow valleys where the wind rushes, isolated and high mountains.

This division into three zones should not be confused with the division into Regions of Snow and Winds given in the rules NV.



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BMI France, is part of the BMI Group, the largest manufacturer of flat and pitched roofing and waterproofing solutions throughout Europe with a significant presence in parts of Asia and Africa.

With 128 production facilities and operations in Europe, parts of Asia and Africa, the company brings more than 165 years of experience and employs over 9,500 employees.

BMI Group is headquartered in London.