

Signy® Generous lines



BMI **MONIER**

CLAY TILE
Large Interlocking
Flat Appearance Tile

monier.fr

Signy®

- **Excellent watertightness: Monier guarantees that SIGNY® tiles can be laid on lower slopes than those recommended by the DTU.**
- **Large economical format: the SIGNY® tile has a very high coverage rate.**
- **Aesthetic: the SIGNY® tile has a very thin nose for a stylish and harmonious appearance on the roof.**



Overall dimensions in cm

≈ 10/m²



TECHNICAL CHARACTERISTICS

Type	Large interlocking flat appearance clay tile
Number of tiles per m ²	≈ 9,7 to 11,9
Variable gauge	30 to 37 cm
Variable gauge	≈ 28 cm**
Linear meter of battens/m ²	2.7 to 3,3 ml
Gutter ventilation section	96 cm ² /ml
Tile interlocking category	Class G0
Unit weight	≈ 4.9 kg
Weight per m ²	47.5 to 58.3 kg
Number of tiles per pallet	210
Weight per pallet	1030 kg
Production site	Signy-L'Abbaye
Laying	Laid with staggered joints right to left
Product standard	NF EN 1304
Application standard	NF P 31-203 [DTU 40.211]
Minimal gradient*	40 % / 21°80' (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

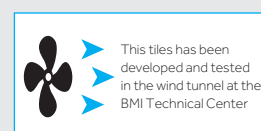
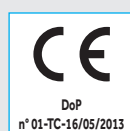
The tile will be in terracotta from the large interlocking low toll flat gauge range, double interlocking, double overlap, with variable gauge, from 9.7 to 11.9 per m², Signy® from Monier style or similar.

Its usual fitting tolerances are 7 cm long, with a interlocking of 50 mm with water deflector and 0.2 cm crosswise.

Laying will be carried out with staggered joints, from right to left, on batten in accordance with application standard NF P 31-203 [DTU 40-211].

Its installation will be carried out using all parts specially designed for dry mortarless laying of ridges and edges as specified in the DTU.

GUARANTEES



COLOURS



Moka (9K)



Charcoal Grey (3L)



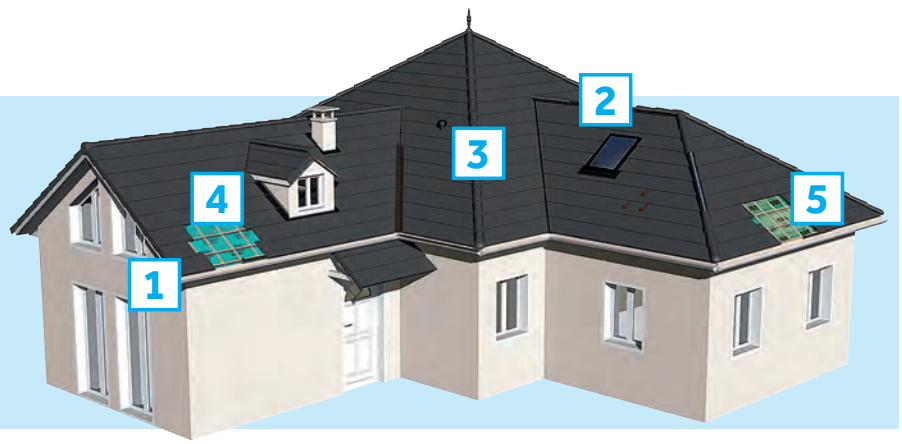
Natural Red (2N)



Antique Red (7E)



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.

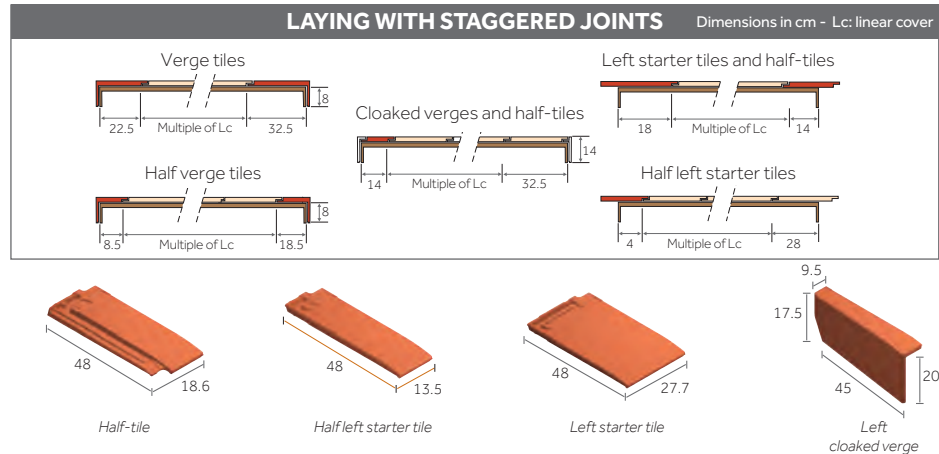


1 TRANSVERSE DISTRIBUTION ACCORDING TO EDGE ASSEMBLY

The SIGNY® verge accessories provide for finishing options:

- Cloaked verge,
- Verge tile and half verge tile,
- Starter tile and half starter tile.

Staggered joints can be created by using half-tile, half verge tile or half starter tile.



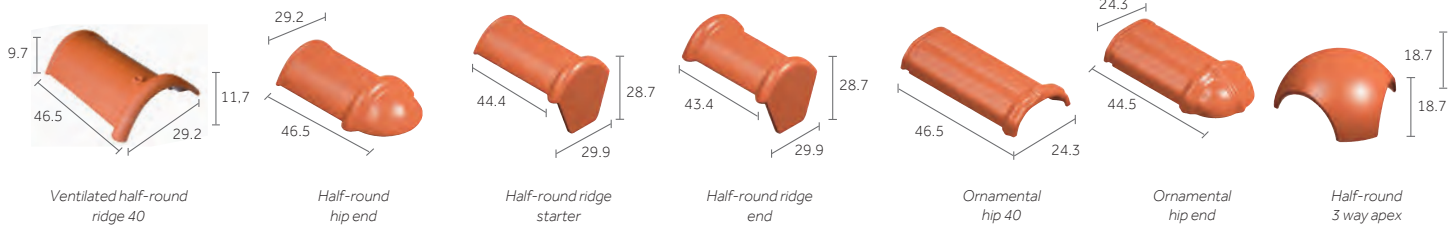
* Accessories available in Antique Red color only

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.

* Accessories available in Antique Red color only



3 AERATION & VENTILATION

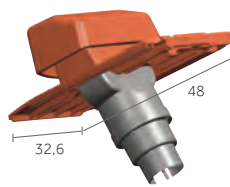
The underside of the tile and their support must be ventilated. This ensures overall correct behaviour of roofing components over time. The use of ventilation tiles is recommended at the upper and lower parts of the roof.

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

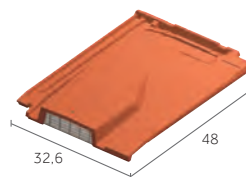
Ventilation in the upper part can be provided by the ventilated closure, in the lower part by the geometric shape of the tile (96 cm²/m).

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.

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



Complete through tile (Ø 100 - 125 - 150 mm)
Lantern + plastic adapters + tile



Ventilation tile with grid (opening 33 cm²)

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.

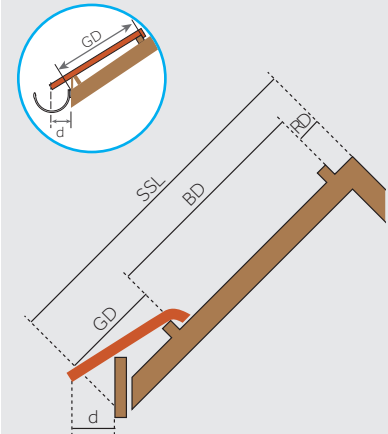
The use of an HPV screen necessarily implies the implementation of a continuous vapor barrier on the underside of the insulation.

DISTRIBUTED OVER THE LENGTH OF THE SLOPING SECTION

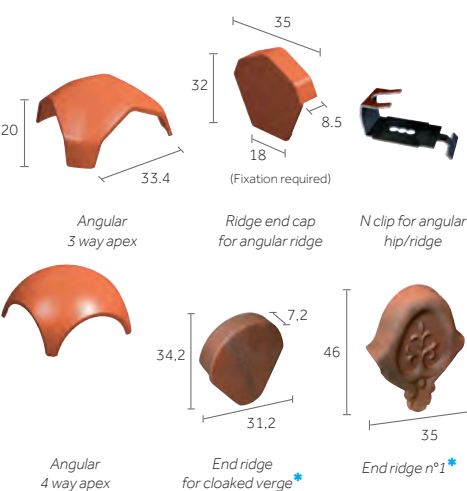
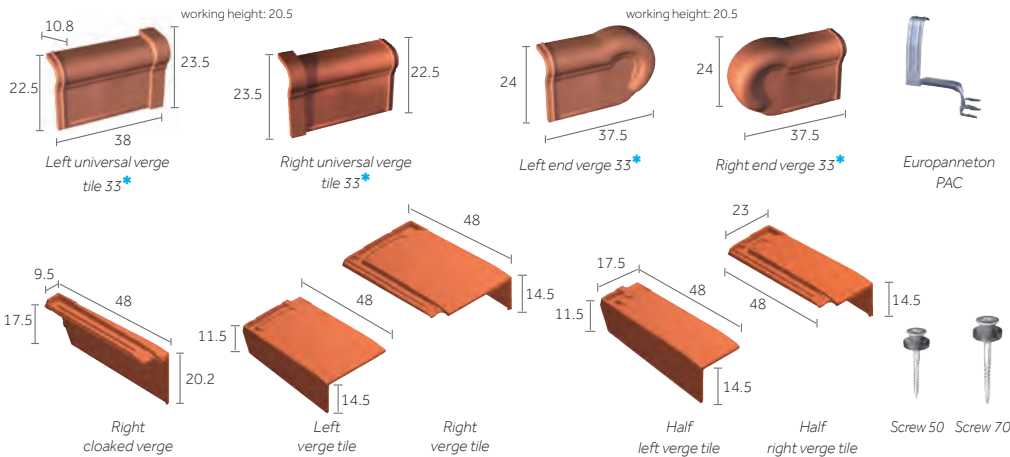
All tiles on the eaves must be fastened.
Please refer to the DTU in force :

• Europanneton® PAC Inox

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 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 = 30 to 37 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



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.



Figaroll® Plus (28/32 cm)

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.



Wakaflex® (18 or 28 cm)

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.



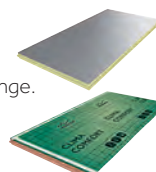
For more information, consult the Monier General Catalog

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

THE ADVICE OF THE PRO

Use the 2 positioning marks for perfect alignment of the tiles. Signy® ridge have sufficient clearance to adapt to the length of the ridge which avoids cuts. The Signy® ridge is a ventilated ridge that ensures, whatever the slope, a ventilation superior to that required by the DTU. For slopes less than 45°, Signy® individual flanks can be installed without any ridge cut.

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® PAC Inox recommended by Monier.

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

THE REGULATIONS

MINIMUM PITCH TABLE IN %

MINIMUM ACCEPTABLE PITCHES IN % (WITH UNDERLAY)

Sites \	Zone 1	Zone 2	Zone 3
Protégé	40	45	45
Normal	45	45	55
Exposé	55	65	75

MINIMUM ACCEPTABLE PITCHES IN % (NO UNDERLAY)

Sites \	Zone 1	Zone 2	Zone 3
Protégé	45	50	55
Normal	50	55	65
Exposé	65	75	85

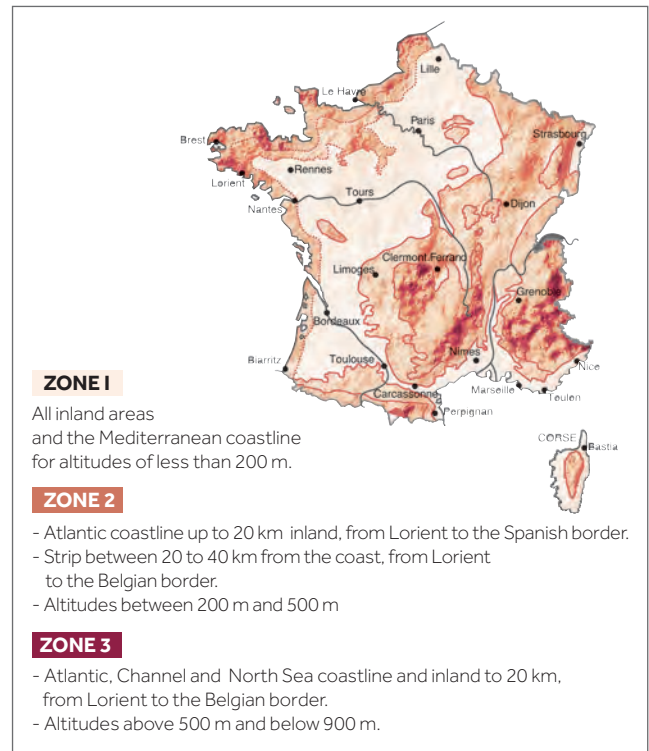
For lower slopes under derogation, consult the Monier General Catalog.

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.