Belmont[®] Tradition and Modernity





CLAY TILE Large-format - Low-profile tile

Belmont[®]

- Excellent sealing (up to 19 % minimum slope)
- Variable gauge : a great flexibility of laying

Easy to lay in straight or staggered joints



46.5 cm

32.6 cm

Overall dimensions in cm



TECHNICAL CHARACTERISTICS

Туре	Clay roof tile large format, low-profile, double lock, double lapping, variable gauge
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	57 cm²/ml
Tile interlocking category	Class G1
Unit weight	≈ 4.1 kg
Weight per m ²	39.7 to 48.8 kg
Number of tiles per pallet	240
Weight per pallet	990 kg
Production site	Signy-L'Abbaye
Laying	Straight or staggered joints from right to left
Product standard	NF EN 1304
Application standard	NF P 31-202 [DTU 40.21]
Minimal gradient*	19 % / 10°76' (Zone 1, sheltered site with underlay, sloping section < to 6.5 ml in horizontal projection)

PRESCRIPTION RECOMMENDATION

The tile will be in terracotta from the large-format low-profile tile, double lock double lapping and variable gauge, 9.7 to 11.9 per square meter, type BELMONT[®] from MONIER or similar.

Its fitting tolerance should be 7 cm long with a 50 mm fitting with deflector of water and 0.2 cm transverse.

It will be laid straight or staggered joints from right to left, on battens according to the standard of NF application NF P 31-202 [DTU 40.21].

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

* 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.



COLOURS



Moka (9K)



Natural Red (2N)



Charcoal Grey (3L)



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.



TRANSVERSE DISTRIBUTION ACCORDING TO EDGE ASSEMBLY

The BELMONT[®] verge accessories provide for finishing options:

• verge with return and half tile.

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A neoprene washer is used for fastening.





* Accessories available in Antique Red color only



AERATION & VENTILATION

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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 $(34 \text{ cm}^2/\text{ml})$.

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 34 cm²)

	ofattic	section (a)					
Roof space not fitted out without barrier	S P	S = 1/5000					
Roof space not fitted out with barrier		S1 = 1/5000 S2 = 1/3000 ^(b)					
Insulated sloping section without barrier	E: S P	S = 1/3000					
Insulated sloping section with barrier	P E1 50 50	S1 = 1/5000 S2 = 1/3000					
Insulated sloping section with barrier highly permeable to water vapour and presence of continuous, independent vapour barrier	E. S	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 harrier ventilated underneath.							

Type

Total

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







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.

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Wakaflex® (18 or 28 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.

SARKING

• CLIMA FIRST®,

OUTDOOR INSULATION

The sarking, thermal insulation process

the roof to insert a thin layer of insulation.

For more information, consult the Monier General Catalog

by the outside dedicated to the attic

or developable, is to enhance

Monier offers a complete range:

the high performance range

quality at the best price,

• CLIMA COMFORT®,

J UNDERLAYS

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- 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.



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For more information, consult the Monier General Catalog

THE ADVICE OF THE PRO

The tile side is suitable for both straight joints and cross joints. Put it diagonally, you'll save time fixing, whether you're screwing, nailing or panning.

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

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)

Zones	Rake length (ground plan)								
Sites	up to 6.50 m			from 6.50 m to 9.50 m			from 9.50 m to 12 m		
	ZONE 1	ZONE 2	ZONE 3	ZONE 1	ZONE 2	ZONE 3	ZONE 1	ZONE 2	ZONE 3
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

MINIMUM ACCEPTABLE PITCHES IN % (NO UNDERLAY)

Zones	Rake length (ground plan)								
Sites	up to 6.50 m			from 6.50 m to 9.50 m			from 9.50 m to 12 m		
	ZONE 1	ZONE 2	ZONE 3	ZONE 1	ZONE 2	ZONE 3	ZONE 1	ZONE 2	ZONE 3
Sheltered	25	27	30	28	32	36	32	35	40
Normal	25	27	30	28	32	36	32	35	40
Exposed	33	37	40	35	39	43	42	45	50

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.



and the Mediterranean coastline for altitudes of less than 200 m.

ZONE 2

- Atlantic coastline up to 20 km inland, from Lorient to the Spanish border. - Strip between 20 to 40 km from the coast, from Lorient
- to the Belgian border. - Altitudes between 200 m and 500 m

ZONE 3

- Atlantic, Channel and North Sea coastline and inland to 20 km,
- from Lorient to the Belgian border.
- Altitudes above 500 m and below 900 m.

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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23-25, avenue du Docteur Lannelongue - 75014 Paris T: 00 33 (0)1 40 84 66 98 - E: fabienne.alexandre@bmigroup.com Contact : export.fr@bmigroup.com 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.

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