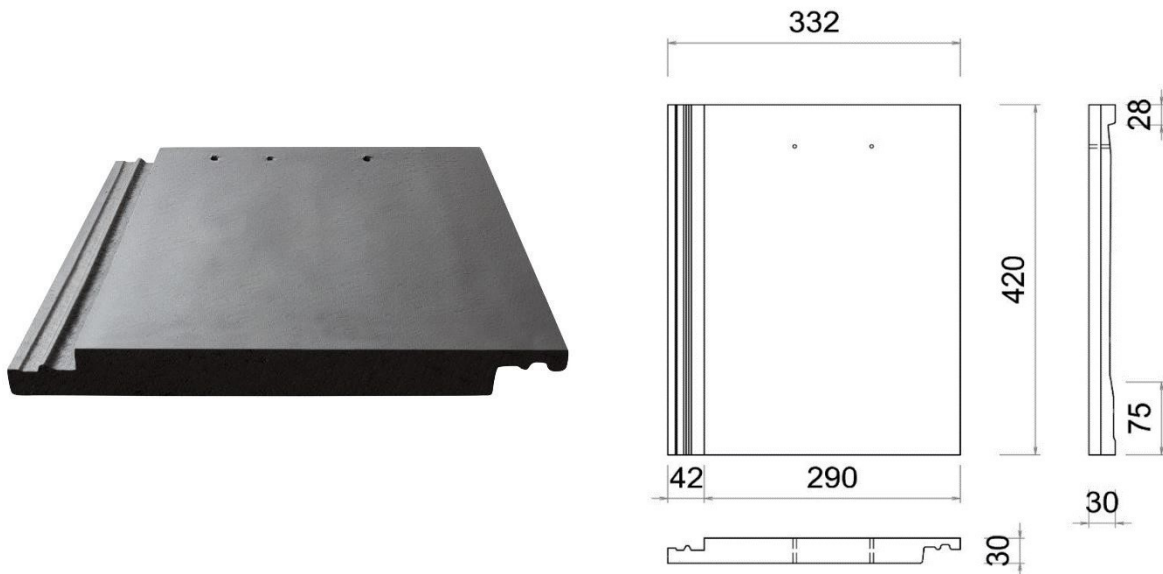


Marley Modern Concrete Interlocking Tile

An elegant flat profile that greatly enhances a contemporary minimalist roof line - the perfect solution to modular lifestyle estates.



PRODUCT DESCRIPTION:

The Marley Modern concrete interlocking tile is a flat, smooth, single-lap interlocking design with a slate-like appearance enhanced by a broken bond laying pattern.

ADVANTAGES (FEATURES & BENEFITS):

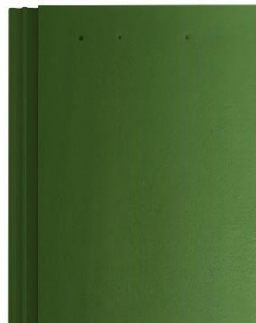
- > A highly cost-effective alternative to natural slate
- > Clean and precise slate-like appearance with the strength and durability of a concrete interlocking tile
- > A large choice of aesthetic colours and finishes including Rustic, Antique, Standard Trough-colour and Marley M22-coated premier concrete roof tile finish with a 22-year guarantee. * Visit www.marleyroofing.co.za for more information & registering the guarantee
- > Also available in multicolour Designer Range * Contact info@marley.co.za for more information

PRODUCT COLOUR RANGE:

ANTIQUE BROWN



ANTIQUE TERRACOTTA



M22 EMERALD GREEN



M22 SLATE



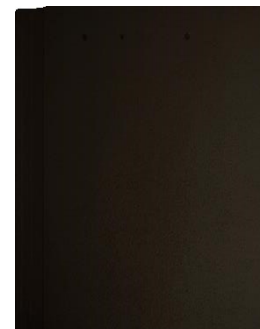
RUSTIC AMBER



RUSTIC SLATE



RUSTIC TERRACOTTA



M22 MIDNIGHT BLACK



RUSTIC BROWN



STANDARD BROWN



STANDARD SLATE

Please note:

- Some colours are made to order, requiring a 10-day lead time
- Not all colours are available in all regions

Therefore, please contact your Marley Roofing Representative for more information or contact Marley Roofing at details provided on the last page of this document.

Due to the limitations of colour reproduction actual samples must always be seen before ordering.

TECHNICAL DATA:

Size of Tile:	420 x 332mm
Minimum Pitch:	16° (22.5° for Rafters/Trusses lengths exceeding 8m and up to 10m)
Maximum Pitch:	55° (Above maximum pitch consult Marley Roofing)
Minimum Headlap:	100mm for rafter lengths up to 10m.
Maximum Gauge:	320mm
Cover Width:	291mm (nominal at lock mid shuffle position)
Covering Capacity:	10,8 tiles/m ² (net)
Weight of Tiling:	+ - 56kg/m ²
Battens Required:	3.13 lin.m/m ²
Batten Size Recommended:	

- 38 x 38mm for rafters/supports not exceeding 760mm centres
- 38 x 50mm (batten fixed flat) for rafters/supports not exceeding 900mm centres
- 38 x 50mm (batten on edge) for rafters/supports not exceeding 1 000mm centres

Note: Above 760mm the rafter spacing can be increased only with engineer designed trusses and with 38 x 50mm batten of the correct grade. All structural timber must comply with S.A National Standards.

Tile Nails:	50mm Corrosion-resistant tile fixing nails
Hanging length:	392mm (nominal)

Additional Notes:

- Use broken-bond practice only!
- **Marley Radiant Barrier is compulsory for pitches below 26 degrees in all cases and Radiant Barrier or Undertile Membrane is compulsory for any pitch above 26 degrees and in all cases.**
- Ensure that all battening is in an absolute level plane.
- On exposed sites and at rafter lengths exceeding 8m the tile headlap must be increased to 120mm. However, increased headlap is not as effective as a steeper pitch.
- Due to natural variations in the raw materials and the occasional occurrence of efflorescence on concrete products, absolute colour uniformity on the roof cannot be guaranteed with Standard Through colour tiles.
- All tiling and fixing to comply with SANS 10062 and 10400L code of practice.

PRODUCT RANGE & ORDERING CODES:

140940	MODERN ANTIQUE BROWN
140952	MODERN ANTIQUE TERRACOTTA
140943	MODERN RUSTIC AMBER
140944	MODERN RUSTIC BROWN
140947	MODERN RUSTIC SLATE
140949	MODERN RUSTIC TERRACOTTA
140959	MODERN M22 EMERALD GRN
140961	MODERN M22 SLATE
140965	MODERN STANDARD BROWN
140968	MODERN STANDARD SLATE
148110	MODERN M22 MIDNIGHT BLACK

STORAGE & HANDLING:

Marley Roofing as well as our customers are responsible for ensuring that a quality product is delivered in a good and acceptable condition to the end consumer.

We therefore advise our customers to apply and follow the best practices laid out below in terms of Storage & Handling of Marley Concrete Tiles, to avoid deterioration in quality and appearance of the surface of the tile and to avoid general problems such as breakage and to minimise wastage.

> Receiving of stock – what to check

- Marley Roofing concrete products are delivered palletised, banded and stretch wrapped, to stockists by fleet of modern transport with mechanical off-loading facilities.
- Please advise customers to check and ensure that stock received is in an acceptable order - packaged on pallets, banded and stretch wrapped and indicate all breakages and shortages on the delivery note.
- Please contact Marley Roofing's Customer Care at 010 600 0284 to report any discrepancies or defective products within 5 working days.

> Handling and Storage of stock in the yard

- Pallets should be transported using appropriate lifting machinery, i.e. fork lift.
- Unload and handle tiles and fittings with care to avoid damage, soiling and breakage.
- Avoid loading pallets onto scaffolding unless a safe access platform has been provided.
- Pallets should be stored on a smooth, level base capable of supporting their weight.
- Do not stack tiles more than 3 pallets high in stockyards.
- If palletised stock's stretch wrapping is removed to split stock for whatever reason, please ensure that remaining stock is securely packed/stacked, preferably in the same way it was delivered.
- To prevent or minimise uneven soiling of tiles within the yard, it is recommended to order stock with a minimum holding time of 30 days, as longer periods of pollution exposure may cause extreme uneven soiling.

> Handling and Storage of stock on site

- Tiles should be stored in a safe location and should be kept protected from damage on site.
- Do not stack tiles more than a single pallet on site.
- If palletised stock's stretch wrapping is removed to split stock for whatever reason, please ensure that remaining stock is securely packed/stacked, preferably in the same way it was delivered.
- Installers should take care when handling and carrying tiles to prevent unnecessary scuffing and breakages.
- Any roof or vertical work in tiling should be treated as fragile and never used as a working platform.
- Ideally roof installation should be carried out after all other trades have been completed e.g. parapet wall plastering and painting.
- We recommend that an adequate number of crawling boards and ladders should be used for gaining access over completed areas of roof tiling, and should be designed for the purpose, be of good construction and strong enough to enable planned work to be carried out.
- In all work to be carried out ensure that all legal safety requirements are met as per local regulations.

> Soiling due to installation:

- Please ensure when mixing mortar for fitting accessories application that the mixture contains adequate water to give a firm structure, without leaching excessive water that can cause soiling of installed tiles.
- All mechanical cutting of tiles for hips, valleys and parapets walls must be done on site and not on the roof to prevent dust settlement.
- For more on Marley Roofing's General Terms and Conditions, please visit www.marleyroofing.co.za

INSTALLATION GUIDELINE:**> Introduction**

Modern single lap concrete roof tiles are of a flat interlocking design. The clean and precise slate-like appearance of the tiles is enhanced by the necessary broken-bond tiling technique on the roof.

Marley Modern tiles are designed for roof pitches of 16° and above and are supplied standard with two nail holes.

> General

The Modern tile is a flat interlocking tile which by its nature will highlight any imperfection in the roof structure. It is therefore imperative to take great care during the erection of the roof trusses and tiling battens to ensure that a level roof plane is achieved.

The following recommendations on installation should be regarded as normal practice. Under certain circumstances material specifications may vary to suit conditions of use and reference should be made to SANS 10062 or Marley's Good Roof Tiling Practice.

> Preparatory site work

Before tiling commences the following preparatory work must be completed:

1. Alignment and bracing of trusses as per specification
2. Parapet walls and chimneys
3. Gable brickwork and beam filling
4. Valley and abutment flashings
5. Fascia boards, tilting battens and gutters

Where some of the above cannot be completed in advance or where purpose-made products are to be utilised, the outstanding preparatory work should be carried out in conjunction with the tiler.

> **Undertile membrane and Radiant Barriers**

For pitches below 26° - prior to battening a SANS approved radiant barrier should be installed in all cases in accordance with SANS 10062.

For pitches above 26° - prior to battening a SANS approved undertile membrane or radiant barrier should be installed in all cases in accordance with SANS 10062.

> **Boarding and waterproofing below pitch**

Where a particular roof design dictates in some areas pitches below 26° special precautions must be taken. The headlap of the tile must be increased to 120 mm and a fully supported approved radiant barrier must be installed over boarding or rigid sarking.

> **Battens**

SANS-approved softwood battens 38 x 38 mm for 760 mm rafter centres to be fixed on engineer-designed trusses at maximum 320 mm batten centres with SANS-approved cut or wire nails.

> **Eaves course**

The eaves course should overhang the fascia board by an amount sufficient to ensure that water will discharge freely into the centre of the gutter. The eaves course must be supported by a continuous tilting batten or fascia board to ensure that the eaves course is in the same plane as the rest of the roof.

> **Top course**

The distance between the top tiling batten and the rafter apex must not exceed 25 mm to ensure that the ridge tiles will overlap the top courses of tiles on both sides with a minimum cover of 75 mm.

> **Main roof**

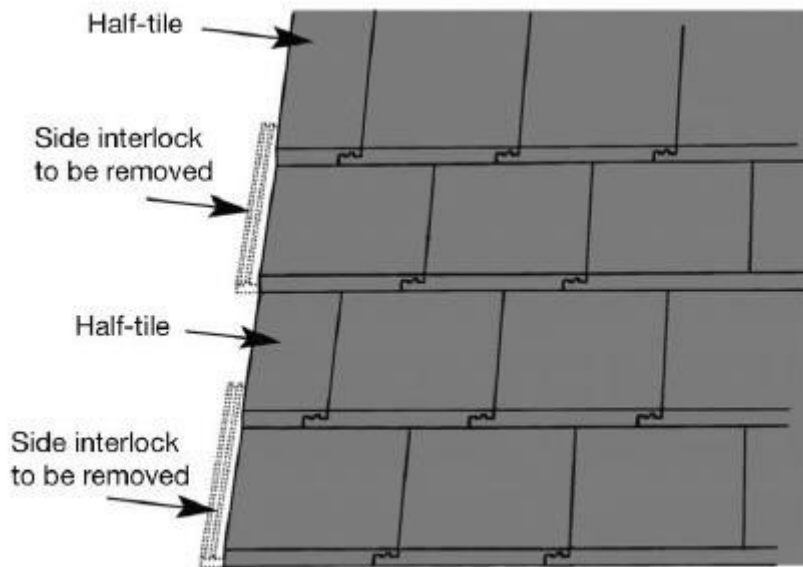
Modern roof tiles are recommended for roof pitches of 16° and above and must be tiled broken-bond with a minimum headlap 100 mm.

Half-tiles are needed at every second course at verges, parapet walls and abutments and must be cut on site to requirement.

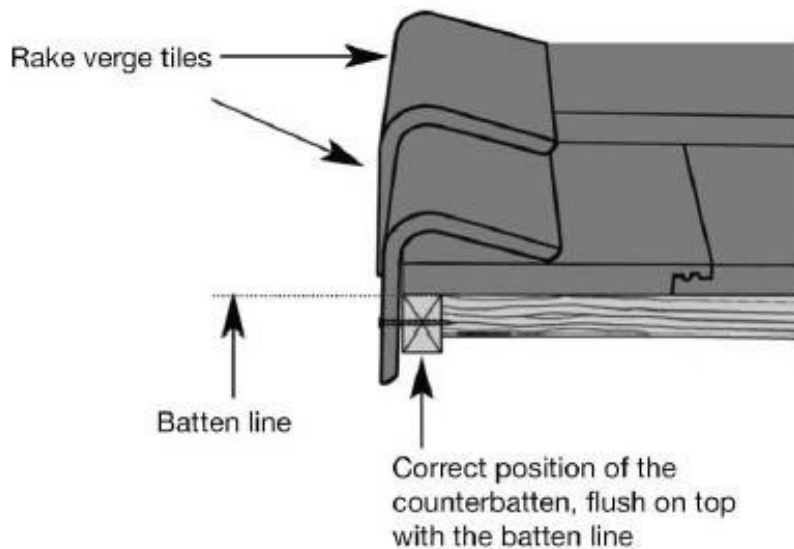
A useful feature on all Modern tiles is the half-tile marker provided in the tile headlap. The half-tile marker helps achieving the correct broken-bond alignment and the accurate cutting of half-tiles.

> Verges

Verges are tiles broken-bond with full tiles and half-tiles in alternate courses. All full tiles at left-hand verges must have the side interlock removed to achieve a straight-line finish. The half-tile module eliminates the cutting of the tiles at verges if the roof is set out correctly.



Marley Rake Vere Tiles are strongly recommended for a maintenance-free quality finish at gable ends. The 38 x 50mm counterbatten installed at verges to the ends of the tiling battens must be fixed flush with the top line of the battens.



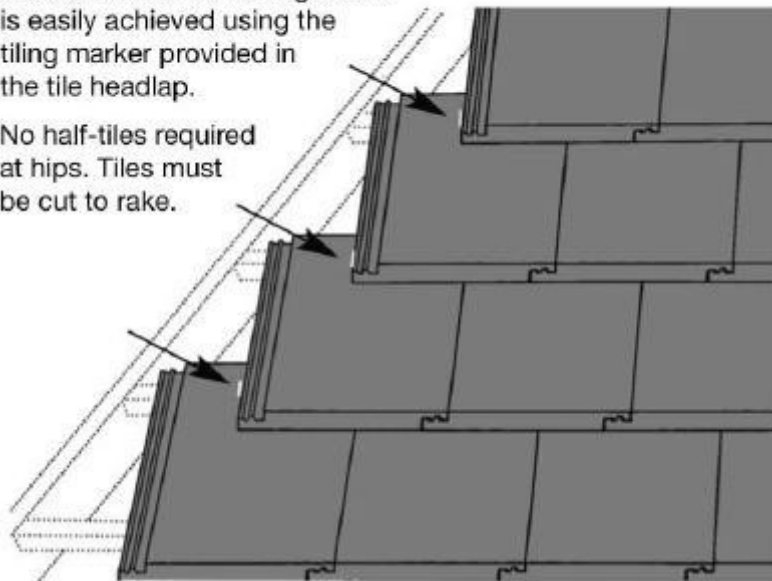
> Ridges and Hips

Marley's range of Ridge tiles and fittings are strongly recommended for an efficient and maintenance-free finish at ridges, hips and mon-ridges. Due to their flat profile Modern tiles are ideally suited for hip roofs as very little bedding mortar is required. We do however strongly recommend the use of Marley Kro Clips to secure cut tiles for hips and valleys to prevent slip-out of these tiles.

Hips:

Correct broken-bond alignment is easily achieved using the tiling marker provided in the tile headlap.

No half-tiles required at hips. Tiles must be cut to rake.



> Valleys

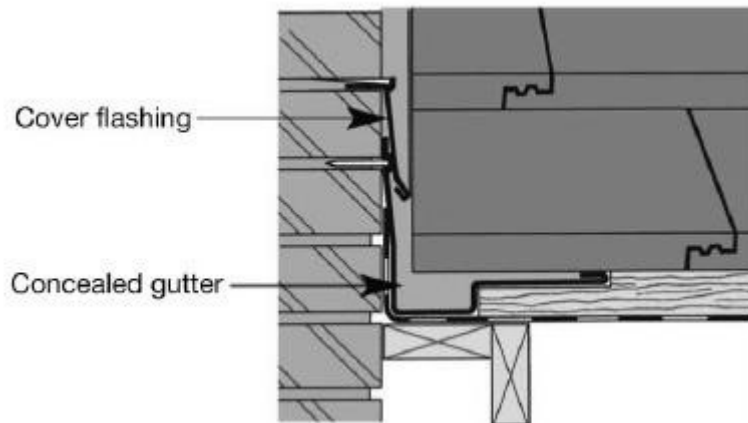
A non-corrodible valley liner at least 450mm wide, preferably with a preformed centre gutter, must be installed before tiling commences. In the case of a closed valley the tiles on each side must be cut to obtain a straight butt-joint over the centre of the valley flashing. For an open valley the adjacent tiles on both sides must be cut to form an open channel at least 100mm wide. Tiles must be neatly cut to rake using a carborundum disc cutter (see Health and Safety Instruction on cutting and drilling of tiles) and securely fixed to the battens.

> Fixing of Ridge and Hip Cut Tiles

We strongly recommend the use of Marley Kro Clips to secure cut tiles for hips and valleys to prevent slip-out of these tiles. Using the crow clip, press the cut hip/valley tile into the kro clip clamp and tap with a hammer to grip and secure the clamp onto the cut tile. The secured kro clip is then attached to the hip/valley batten/rafter by wrapping the attached wire around a secured nail that has been nailed to the hip batten.

> Abutments

The tiling must be cut closely at abutments. Concealed gutters with cover flashings are recommended for Modern tiles and must be installed before tiling commences.



> Fixing

Modern tiles must be mechanically fixed with corrosion resistant 50mm long nails in accordance with SANS 10062. Above 55° roof pitch each tile must be nailed twice. All fixing nails must comply with the relevant requirements of SANS 820.

Where clips are used they must be nailed to the tiling batten of the immediate course beneath with the clip firmly located over the side lock of the tile being clipped.

> Unexposed roof situations:

We strongly recommend that in all instances the full roof overhang at eaves, verges and two rows of tiles under the ridge and near abutments, hips and valleys, are being nailed or clipped.

> Semi-exposed and exposed roof situations and coastal areas:

Refer to SANS 10062 or to Marley Minimum Fixing Specifications. For roof pitches above 55° and vertical tiling consult Marley Roofing for further advice.

> Mortar bedding

All bedding mortar used for hips and ridges should consist of 3 parts clean sharp plaster sand to 1 part Portland cement or masonry cement suitably tinted to the colour of the tiles. The bedding mortar should be struck off and pointed in one operation to obtain a smooth finish.

> Dry fixing solutions

> Marley Dry Ridge Kits – the items within each kit is also available to purchase separately

> Inland Ridge Kit - for gable to gable roofs with no hips: 1 x 10m Ridge roll, 27 x Ridge tile clips (Terracotta or Slate), 14 x Ridge Tree brackets

> Inland Ridge & Hip Kit – for roofs with hips: 1 x 10m Ridge roll, 27 x Ridge tile clips (Terracotta or Slate), 14 x Ridge Tree brackets, 30 x Crow Clips

> Coastal Ridge Kit – for gable to gable roofs with no hips using the double batten ridge fixing method: 1 x 10m Ridge roll, 27 x Ridge tile clips (Terracotta or Slate)

> Coastal Ridge & Hip Kit – for gable to gable roofs with hips using the double batten ridge fixing method: 1 x 10m Ridge roll, 27 x Ridge tile clips (Terracotta or Slate), 30 x Crow Clips

Recommended temperature of fixing – above 5°C.

Recommended storage – not exceeding 35° C

> Dry Ridge Installation Method

- 1.The surface of the roof tiles must be clean, dry, free of dust and grease.
- 2.Lay the Marley Under tile membrane or Radiant Barrier in the normal manner.
- 3.If ventilation is required set back 5-30mm on both sides from the apex to create air ventilation
- 4.Temporarily install top battens on either side of rafters/trusses apex to first and second rafter/truss 50mm from the apex.
- 5.Install three roof tiles to both top battens. Place the ridge tile on top of the roof tiles to gauge required height of ridge batten and ridge batten tree from top of apex. Temporarily hold the ridge batten tree 38mm from the underside of the ridge tile. Allow gap of 38mm for 38mm x 38mm ridge batten installation. Measure the distance between the apex and the underside of the ridge batten tree bracket. Generally, the gap between the rafter apex and bottom of the galvanised ridge tree is +- 60mm, subject to different tile profiles
- 6.Remove the top battens and install the first ridge batten tree by bending its legs to match the pitch of rafters/trusses. Secure with galvanised nails or screws through provided holes in ridge tree legs.
- 7.Repeat this process on the other gable end. Secure a taut gut line between both ridge batten trees to achieve correct height of intermediate ridge trees. Install all intermediate ridge batten trees to rafters/trusses apex with galvanised nails. Permanently replace the top battens to all rafters/trusses
- 8.Install the ridge batten into ridge batten trees with 30mm galvanised nails or screws into holes provided
- 9.Install all roof tiles or slates in accordance to Marley fixing specifications

10. Roll out ridge roll and centre up with ridge batten. Secure with small galvanised or stainless-steel nails/staples to ridge batten at 1-meter intervals

11. Peel off the protective tape from the butyl adhesive and press down to top side of roof tiles on both sides of the ridge. Carefully adjust the corrugated edges into the valley/water channels of the tiles/slates profile

12. Overlap ridge rolls by 50mm to prevent water ingress

13. Place the first ridge tile (the first tapered ridge tile requires a 20mm spacer under the trailing edge to compensate for lack of previous tile overlapping. This ensures a straight ridge line of ridge tiles. The same rule applies to Hip starters.

14. Secure each ridge tile with a ridge tile clip. Secure ridge tile clips in place with galvanised or stainless-steel screws to a depth of 25mm into the ridge batten. Secure every 4th ridge tile with a galvanised or stainless-steel appropriate length screw to a depth of 25mm into the ridge batten.

> **Dry Ridge for hips** – temporarily fix the ridge-tree brackets in spaces between battens onto the hip rafter. As per above method (points 5 and 6) - gauge the height of the ridge tree. Once height has been established, bend and secure permanently with nails. As per above (point 8), install the ridge batten into the Ridge Tree. Using the kro clip, press cut hip tiles into the crow clip clamp and tap with a hammer to grip and secure the clamp into the cut tile. The secured kro clip is then attached to the hip batten by wrapping the attached wire around a secured nail that has been nailed to the hip batten. Continue with instructions (9 to 14) to finish dry ridge hip installation.

> **Dry Ridge Double Batten System for Coastal Hip and Coastal Ridge Kits** – Secure a 38mm x 38mm batten directly onto each rafter/truss/hip rafter by nailing two 75mm wire nails – one from the top left and the other from the top right - diagonally across the top of the batten into each of the rafters/trusses. Place another 38mm x 38mm batten on top of the secured 38mm x 38mm ridge batten. As per above method, fix the upper top batten to the bottom ridge batten by nailing two 75mm wire nails diagonally across from the top of the batten into the bottom ridge batten. Continue with points 9 to 14 to complete dry ridge installation.

> **Maintenance**

Correctly installed and maintained Modern tiles should perform satisfactorily for the lifetime of the building.

Due to their flat design Modern tiles do not have the inherent strength of profiled tiles. Modern tiles may be damaged, cracked or broken if walked upon after installation. Essential maintenance should be performed by qualified personnel, walking on the lower third of the tiles only to avoid damage.

Marley Roofing cannot be held responsible for any damage or breakages on the roof caused by after-trades, bad fixing practice, negligence or mishandling of the product.

> Technical advice

Marley's Technical Department provides free advice on all technical roofing matters.

> Availability

Marley Modern tiles are distributed nationally and can be delivered in palletised form. For further information contact Marley Roofing.

The manufacturer reserves the right to change or discontinue any of the specifications or products without notification. All goods are subject to availability and the company's conditions of sale which are available on request.

CONTACT DETAILS:

Call: 010 600 0284

Email: info@marley.co.za

Web: www.marleyroofing.co.za or scan QR code below:



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