




ARMOURED SLATE


Low pitch
Lightweight
Fire-rated
Rapid-fix
Flexible
Natural slate
Cost effective
Rainscreen



#ARMOUREDSLATE



MAYAN
ROOFING SYSTEMS



As low as 10°
BS EN 13501-5 B_{ROOF} (t4)
BRE weather tested - High performance

www.mayanroofingsystems.com

Lightweight Slate Roofing

Our single lap
system uses
48%
Less slate
(Average)

Below 20kg/m²

Weight depending on slate choice

At below 20 kg/m² (as low as 15.4kg/m²) the ArmouredSlate roof can be used on applications where previously synthetic slates were the only suitable weight alternative to natural slate. ArmouredSlate now allows real slate to be used in lightweight or low pitch applications, with all of the of the long life, weathering performance and aesthetic benefits.

Flexible

The ingenious design of the durable single lap ArmouredSlate allows each unit to act independently with increased strength and it is highly suited for offsite, where whole roof structures can now be pre-assembled and transported to site.

Traditional Appearance



Indistinguishable from a traditionally laid slate roof



How does it work?

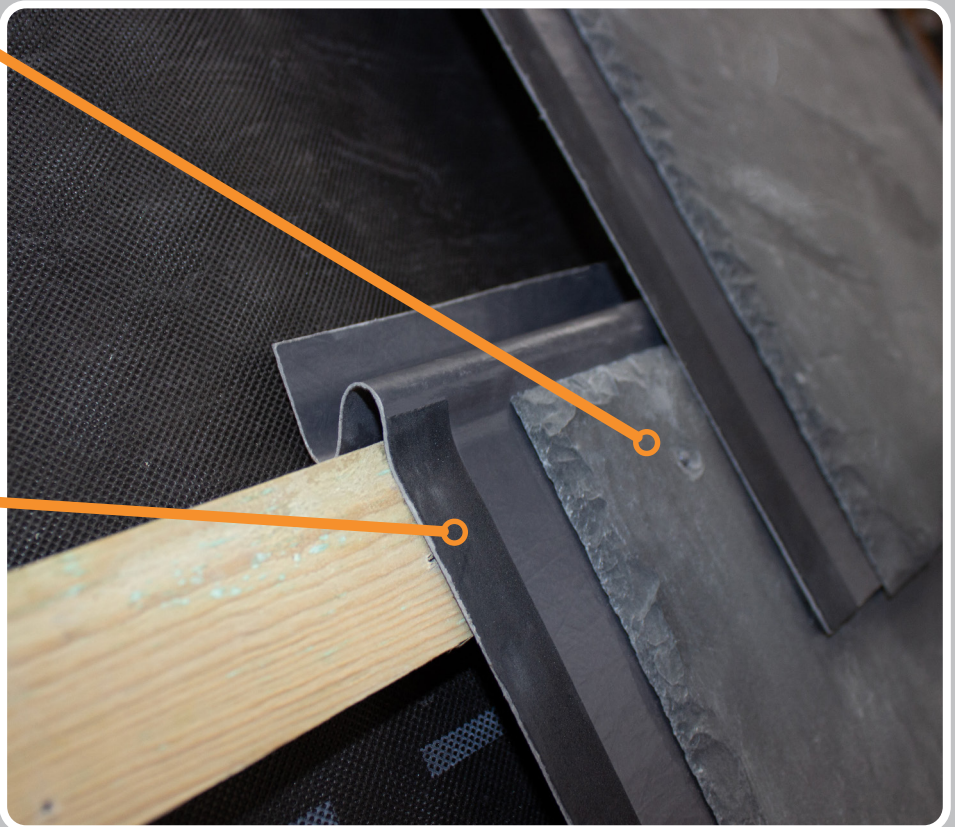


ArmouredSlate tiles are manufactured from natural slate that is permanently bonded to our specially designed, high performance patented GRP plate, to form a ready-to-install slate tile. The ArmouredSlate GRP has a unique upper curve and secondary weather seal system, to prevent wind driven rain or capillary driven moisture from tracking over the head of the slate. The fire-rated GRP plate replaces the need for double lapped slates, providing a resilient and completely waterproof layer beneath the slates and offering total protection against the very worst of the elements. GRP has a proven life in excess of 40 years.

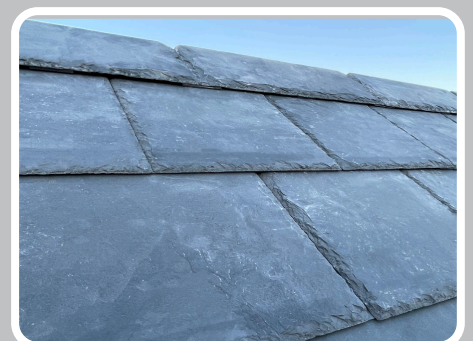
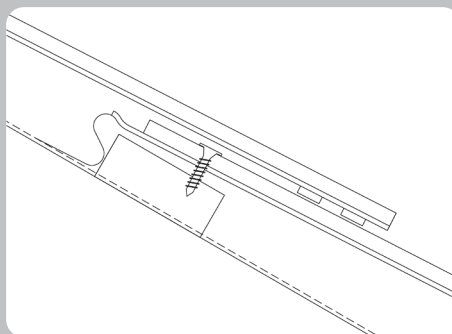
Our specially sourced, low profile A4 stainless steel SlateFix screws fix perfectly flush under the system into the pre drilled holes, for the most secure fixing.



Highly durable EDPM tape is pre-installed on each GRP side-lap, for a flush seal and a further barrier to prevent water ingress through capillary action. The BRE testing has proven its excellent performance.



The ArmouredSlate GRP plate is accurately colour matched to the slate to be invisible and blend discreetly into the roof to be indistinguishable from a traditional slate roof, you wouldn't know the difference.



High Performance



The ArmouredSlate system dramatically improves the performance of a slate roof and allows very low pitches to be achieved. Read more about our exceptional test results.

ArmouredSlate is suitable for all roofing applications and is a specially suited solution for:

- Conservatory roofs
- Offsite construction
- Extensions / lean-to roofs
- Timber frame
- Ideal solution for longer rafter lengths and commercial/industrial applications
- Mobile homes / chalets

Improved Durability

Our unique cross lamination of hard slates with high tensile long life GRP creates a highly durable super strong slate tile that is also resistant to the shale effect of moisture erosion. Because the system is cross laminated and bonded with our unique and bespoke fibreglass preformed plate, the slates can withstand increased force or weight, they are extremely strong. This means transportation, and walking on the roof is no problem, and the slates have extreme durability added, but still with all of the natural properties and appearance.

Flexible and durable slates are the ideal roofing solution for offsite construction and transportation.



Quick & easy

The pre-formed unit incorporates our ingenious curved design which simply hooks over the batten as one pre-formed unit, with the slates already attached to the patented GRP plate.

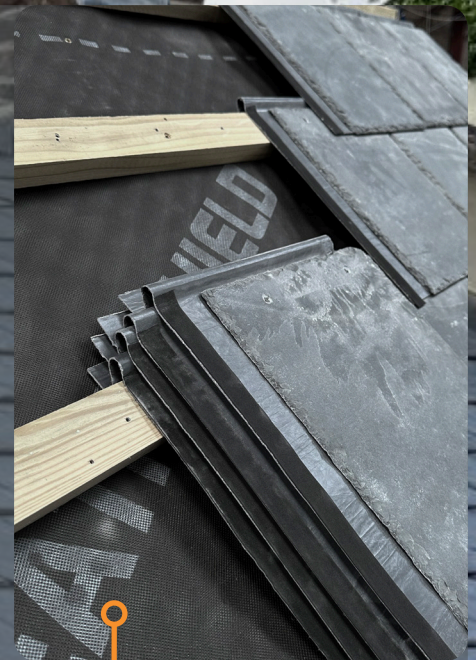
The single lap use of 48% less slate means our smaller slates are lighter, safer and easier for roofers to handle.

- Dramatic labour savings on installation.
- 20% less batten required.

Ease of installation is the solution to the construction skills gap

ArmouredSlate tiles can be conveniently stacked and hooked over the batten whilst the roof is being installed.

See our installation guide: www.mayanroofingsystems.com/resources



Rain screen application

Suitable for use as a rain screen or exterior cladding system. Can be mounted on rails or battens or directly onto boarding. Highly flexible flange design restricts airflow and reduces the chimney effect for greater fire resistance.

Close boarded option available

Close boarded variation of ArmouredSlate available for fixing directly onto fully boarded roofs.



Quantities

Estimates based on 300mm x 350mm base size. Accurate quantities Should be based on setting out and cuts should be considered.

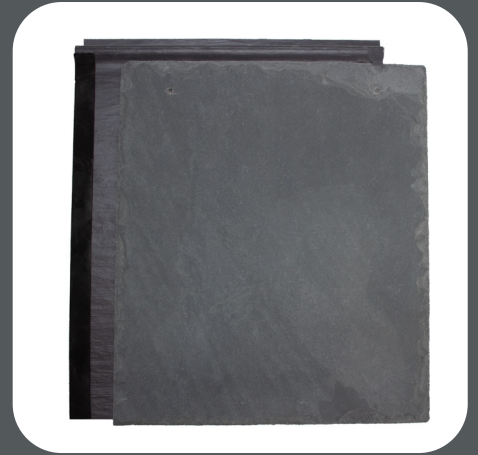
Tiles per m² : @ 80mm headlap = 12.35
(Below 17.5 degrees) @ 100mm headlap = 13.33

Revolutionary 'SLATE TILES'

Ready-to-install units.

ArmouredSlate is a unique patented system for mounting natural roofing slates in a single lap format. By using our patented Armoured GRP plate, we have dramatically improved the installation time and performance of a standard slate roof, whilst maintaining the appearance that is so important.

The lightweight, high performance ArmouredSlate system will allow natural roofing slates to be used on many projects where it was not previously possible.



Choice of slate / colour available, including bespoke.

Highly cost effective

Compared to other high performance slate roofing solutions and low pitch alternatives. 20% less batten required.



Low Pitch Slate Roofing

As low as

10°

Low pitch slate roofing is now a solution for extensions and the commercial market, meaning there is no compromise on performance or the aesthetic appeal, with natural slate which can be matched to the surrounding area or local buildings.



Mayan ArmouredSlate achieves $B_{ROOF}(t4)$ fire status

Following the Grenfell tragedy, many changes to building regulations have reinforced the importance of using fire tested products.

The ArmouredSlate system was recently tested at the BRE where it achieved a $B_{ROOF}(t4)$ classification. The test has proven that our innovative application of GRP to enable low pitch slate roofing can be used on all applications, whilst providing the ultimate in lightweight and high-performance benefits.

The $B_{ROOF}(t4)$ classification indicates the highest performance classification achievable by a roof construction when subjected to external fire exposure, in accordance with BS EN 13501-5. $B_{ROOF}(t4)$ enables use right up to the boundary.

The fire testing results accompany the outstanding weather resistance test results previously achieved on the ArmouredSlate system at the BRE.

Best BRE Performance

Wind Driven Rain Test

We tested the ArmouredSlate system under the PD CEN/TR 15601:2012 standard and compared it to a traditionally installed double lap slate roof.

Traditional slate roofs only remain waterproof on a pitch above 25°, whereas the ArmouredSlate system allows natural slate roofs to be installed, fully waterproofed, as low as 10°.

Our tests at the BRE have shown that a riven surface as well as things like capillary action in traditional slate roofing means wind driven rain will penetrate slate roofs

at low pitches. It is essential that roofs perform to modern building requirements and are durable and watertight.

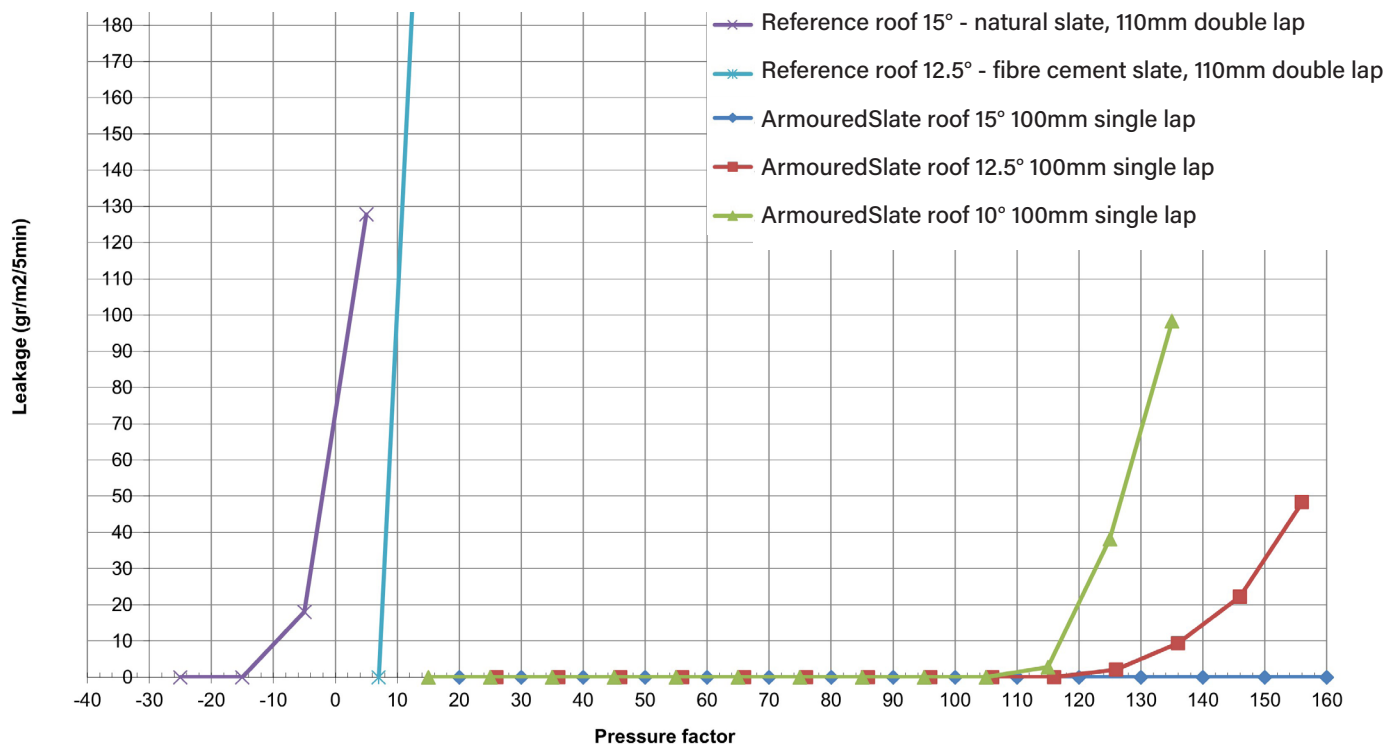
The ArmouredSlate system was tested against extreme weather conditions (maximum rainfall and high rainfall with high wind speed) at various roof pitches to establish the performance.

The graph below shows the difference in leakage between the ArmouredSlate roof measured at 15°, 12.5° and 10°, which dramatically outperforms a standard slate roof and fibre cement roof when installed at low pitches.



The Mayan ArmouredSlate roofing system dramatically improves the overall performance of a natural slate roof. Our system is watertight and durable down to 10 degrees.

Leakage factors of the ArmouredSlate roof vs a standard slate roof at various pitches.



The BRE wrote a case study about our impressive testing results - read it here!

<https://www.bregroup.com/case-studies/Mayan-roofing-boosts-product-confidence-with-comprehensive-bre-testing>

Finish in style

with



Angles available: 75°, 90°, 105°, 120°, 135°, 150°

All-in-one

Slate ridge



Block end



Hip end



Slate Dry

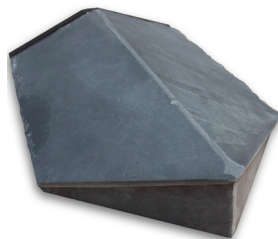
Slate ridge



Block end



Hip end



The brand new Slate Dry RealRidge is perfectly matched to our ArmouredSlate range for a beautiful seamless roof.

Inverted Apron Ridge

For Wall-to-Pitched roof junction

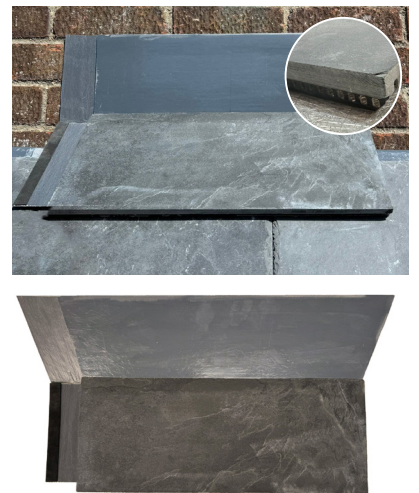
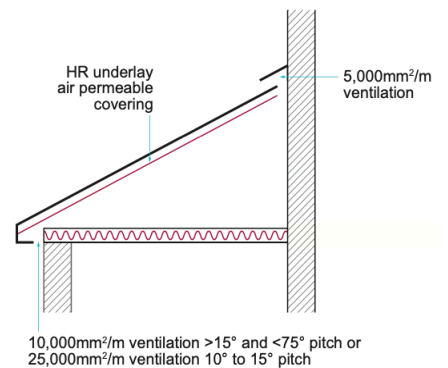


Figure 45: Mono-pitched roof



**Mono-ridge and bespoke options also available.
See our full range of ancillaries.**

ARMOURED stone

*Modern, heritage, lightweight,
stone roofing system.*



- **LOW PITCH**
As low as 17.5°
- **SINGLE LAP**
43% less stone
- **LIGHTWEIGHT**
67 kg/m²
- **NATURAL STONE**

Can also be used with reclaimed stone
Quick and easy to install
Traditional appearance



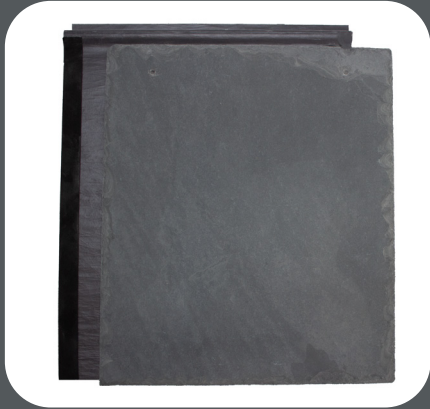
PRODUCT SPECIFICATION

Ready to install slate tile unit.

Natural slate chemically bonded to our patented GRP fixing and waterproofing system. Fixing holes pre-drilled with pre-applied lap-tape.

Mayan ArmouredSlate Tile

Standard stock size:
300mm wide x 350mm height



Mayan ArmouredSlate Tile and a Half

450mm wide x 350mm height



Mayan ArmouredSlate Double

600mm wide x 350mm height

Double sized pre-manufactured slate tile, suitable for low pitch hipped roofs for ease of installation and cutting.

Variety of slate types, colours and sizes available.

Please get in touch for available list of size and colour variety.

COMPONENTS

ArmouredSlate GRP

UV stable GRP preformed sheeting



Pre-installed to Mayan ArmouredSlate Tile:

GRP Colour:	Blue Grey RAL 7015
Length:	300mm
Thickness:	1mm
Weight:	1.6 - 1.8kg each
Finish:	Matt finish
Resistance:	Resistant to infestation and degradation
Fire rating:	SAB, Class 3 to BS476 parts 3 & 7 B _{ROOF} (t4) classification to BS EN 13501-5

Side Lap Tape

EDPM foam tape

Size:	1mm x 20mm
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Lower Weather Tape

EDPM foam tape

Size:	2mm x 20mm
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FIXINGS

SlateFix Screws

Unique flat head screws perfectly suited to secure slates for a flat appearance



Size:	4.9 x 42mm
Type:	T20 A2 Stainless Steel. Drill Bit included. 2 screws required per slate.

ARMOURED SLATE

Find out more about our full range of products:



The patented ArmouredSlate Roofing system has been designed by:

Roofing, reinvented.

MAYAN
ROOFING SYSTEMS

See our website for fitting guides, technical data sheets and all other information for ArmouredSlate and RealRidge. Please get in touch for any technical enquires.

➔ www.mayanroofingsystems.com/resources

Calculate your full roof material list

NEW Try our new online slate roofing quantity calculator - add your roof measurements to work out your roof planning data and full list of materials for your slate roof.

www.mayanroofingsystems.com