

HARDROW®

A ROOFING
HERITAGE SET
IN STONE



Forticrete



REPLICATING NATURAL STONE AESTHETICS
FOR A STANDOUT STYLE



Ibstock
At the heart of building



HARDROW SLATE IS SLIGHTLY IRREGULAR IN SIZE AND SHAPE TO EVOKE THE TRADITIONAL LAID CHARACTER OF NATURAL STONE ROOFING – IT CAN BE LAID IN RANDOM WIDTHS OR DIMINISHING COURSES AND IT NATURALLY MELLOWS WITH AGE.

DID YOU KNOW..?

Solos

A single colour slate that is manufactured to be non-uniform in appearance to replicate the traditional natural stone roof aesthetic.



BROWN



DARK GREY



LIGHT GREY



OLD STONE



THATCH



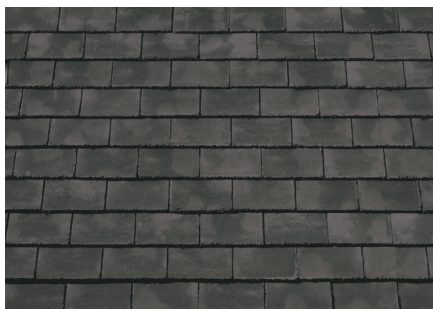
YELLOW

Duets

Exceptional and innovative. Duets combine the subtle shades of the Solos range on a single slate for optimum results in random application laying.



BARLEY



DUSK



TWILIGHT

Harmonies

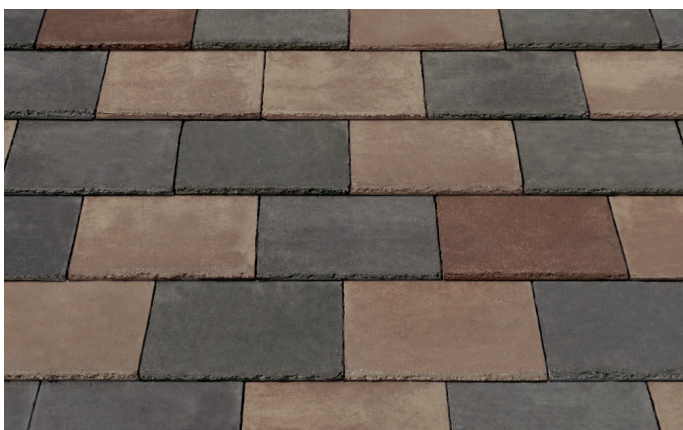
Subtle individual blends of 'mixed colour' designs, unique to Hardrow for a unique, vibrant aesthetic.



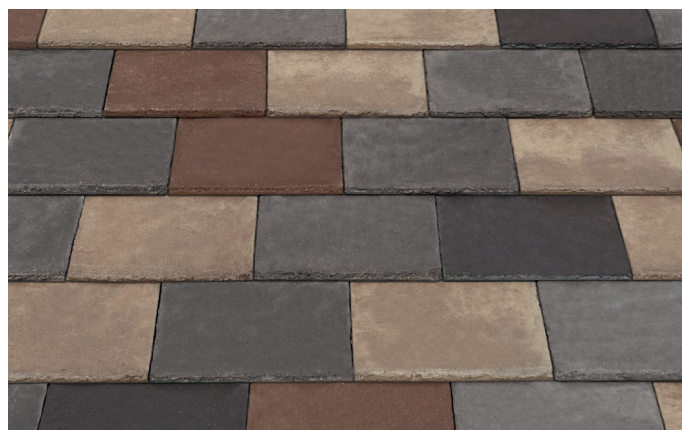
SYMPHONY



OVERTURE



COLLYWESTON



COTSWOLD

The Hardrow® heritage

THE INSPIRATION FOR HARDROW SLATE CAME IN THE EARLY 1920S, WHEN MANY OF THE OLDEST AND MOST OUTSTANDING EXAMPLES OF GEORGIAN AND EARLIER ARCHITECTURE WERE ROOFED IN LARGE STONE SLATES.

Forticrete saw this as an opportunity to manufacture a cost-effective alternative product that matched all the qualities of natural slate. And so, at Hawes in West Yorkshire, the first Hardrow Slates were manufactured and it has been an increasingly popular choice for homeowners, roofing contractors and specifiers ever since.

The natural choice

Hardrow Slate provides you with the means to achieve a natural stone aesthetic appeal in architecture. From three colour ranges that cover classic and modern tastes, it also comes in a range of sizes for a bold appearance and excellent coverage.

- Stone slate appearance
- Wide range of sizes and colours
- Exceptional water resistance

For the perfect finish and vital functionality, there's also a wide range of detailing components, ornamental slates and ventilation enabling products. Hardrow Slate can also be laid at pitches as low as 17.5 degrees. All this, available to give you maximum design freedom.

- Double lap for flexible roof design
- No mortar needed – mechanically fixed
- Purpose made fittings for roof detailing
- Kitemarked to BS EN 490
- Some sizes can be laid as low as 17.5°



Roofing that's got it all covered

Regional preferences

Hardrow Slate has a longstanding history of successfully meeting strict local planning regulations. With various regions demanding that any building project must adhere to the local natural stone appearance or colour, Hardrow Slate comes in a wide range of colours and blends suitable for most counties and regions.

Over

200 PROJECTS AND DEVELOPMENTS COMPLETED NATIONWIDE IN RECENT YEARS

With Forticrete's established history, it's no surprise that their roof tiles are versatile and popular for usage across private and commercial sectors. From a wide range and vast supplies of colour options for new builds, to a cost-effective solution for social housing and re-roofing projects.

Hardrow Slate has been, and continues to be, a favoured choice for a range of roofing applications.







Dimensions and specifications

Standard roofing slates

NOMINAL SLATE SIZE	457MM X 305MM (18" X 12")	457MM X 457MM (18" X 18")		610MM X 457MM (24" X 18")		
Pitch	25° & above	20° – 24.9°	25° & above	17.5° – 19.9°	20° – 24.9°	25° & above
Max gauge	191mm (7½")	178mm (7")	191mm (7½")	241mm (9½")	255mm (10")	267mm (10½")
Minimum headlap	75mm (3")	102mm (4")	75mm (3")	127mm (5")	100mm (4")	75mm (3")
Min side lap	95mm (3¾")	89mm (3½")	75mm (3")	121mm (4¾")	102mm (4")	107mm (4")
Cover width	311mm	464mm	464mm	468mm	468mm	468mm
Nominal hanging length	407mm	407mm	407mm	560mm	560mm	560mm
Nominal thickness	14mm (9/16")	14mm (9/16")	14mm (9/16")	16mm (5/8")	16mm (5/8")	16mm (5/8")
Mass per 1000 slates	4.8 tonnes	7.2 tonnes	7.2 tonnes	10.6 tonnes	10.6 tonnes	10.6 tonnes
Number per m ²	17.22	12.3	11.5	9.07	8.61	8.2
Weight per m ²	83 kg	88 kg	83 kg	96 kg	91 kg	87 kg
Batten required lin m/m ²	5.24	5.62	5.24	4.15	3.92	3.75
Tiles & halves	457mm x 457mm (18" x 18")	457mm x 686mm (18" x 27")		610mm x 686mm (24" x 27")		
Eaves & tops	330mm x 305mm (13" x 12")	305mm x 457mm (12" x 18")		457mm x 457mm (18" x 18")		

The minimum pitch is based on a maximum rafter length of 9m. For rafter lengths greater than this, please contact the Forticrete Technical Department. Batten size: 50mm x 25mm for all rafter centres up to 600mm graded timber in accordance with the current British Standard BS 5534.

Tile fixing

Each slate must be secured with two 40mm x 3.35mm aluminium nails. For the 610 x 457 slate, above 30° the nail should be 40mm x 4mm. All slates and slate fittings in the general, local and perimeters should be nailed into the batten with two flat headed 40mm x 3.35mm stainless steel, aluminium nails. Tiles at the verge must be fixed using one verge clip per course. The nail hole diameter is approximately 5mm with the holes being positioned c. 50mm from the head and edge of the slate. Nail specification may alter for marine environments, and you should seek advice from the Roofing Technical Department.

Designation of standard slates

NOMINAL SLATE SIZE		DESIGNATION NUMBER
IN	IN	
STANDARD ROOFING SLATES		
457 x 305	18 x 12	T - EN 490 - NL - 0 - IF - 311 - / - / - (407) - 4,80
457 x 457	18 x 18	T - EN 490 - NL - 0 - IF - 464 - / - / - (407) - 7,20
610 x 457	24 x 18	T - EN 490 - NL - 0 - IF - 468 - / - / - (560) - 10,60

Standard fittings

Hips, valleys and mansard slates are available to order to cover the full range of roof pitches.

Working procedures, safety & general precautions

Slates should be fixed in accordance with BS 5534. Forticrete recommend that fixers of all slates regard the products as fragile as stated in BS8000:Pt6: Section 5. During installation of the products, the correct setting out and working procedures should be employed to avoid walking directly on to products which have been fixed or are on any completed area of a roof. Should it be necessary to gain access via the roof where battens of adequate strength cannot be used as footholds, this should not be attempted without the use of adequate protection to the tiles or slates including the required number of bolstered crawling boards, ladders and cat ladders.

Non-standard fittings

Non standard fittings can be made to order to suit special applications. Please consult our Roofing Technical Department for help and advice.

Please note that where there is a change of pitch, packing may be required between crawling boards, cat ladders and the surface of the tiles or slates to avoid damage to the product. Fixers should note that Forticrete do not recommend the practice of cutting tiles or slates in-situ. Other information can be obtained from the Health and Safety in Roof Work publication HSG33 and in the 'Working on Roofs' publication INDG284. When unpacking the slates from the pallets, please cut the shrink wrap as instructed and maintain even distribution of the slates on the pallet to avoid tipping. Reference should also be made to the Forticrete Technical Literature and Fixing Instructions.

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