

# JohnBrash



## Western Red Cedar Shingles Product Guide

Western Red Cedar Shingles & Shakes from John Brash are a truly renewable and sustainable roofing and cladding material; with one of the lowest carbon footprints of any widely used building product. They are light to transport yet durable and offer a high degree of thermal insulation.

Shingles and Shakes have been used for a wide range of structures from simple garden gazebos to domestic dwellings to major theme parks. Shingles and Shakes perform the same functions but are manufactured in different ways.

A Shingle is produced by sawing a block of wood on both sides, giving a relatively smooth face and back. A Shake is hand split from a block of cedar along the natural grain of the wood and then resawn to produce one smooth surface.

They can be used for both roofing and cladding. Cedar Shingles can be fixed to pitches as low as 14 degrees.



## Cedar Shingles:

### Quality and Environment:

John Brash sources its Western Red Cedar Shingles and Shakes from manufacturers who are members of the Cedar Shake and Shingle Bureau. All John Brash Cedar Shingles have the 'Certi-Grade' quality assurance label and have PEFC Chain of Custody to ensure both a legal and sustainable product.

### Grades:

Cedar Shingles are produced in 3 grades. These are referred to as Blue Label, Red label and Black Label. John Brash only recommends the use of Blue Label shingles in the UK. They are:

- 100% Heartwood – this is the durable part of the tree (sapwood easily decays)
- 100% Edge Grain – this ensures the shingle is stable, doesn't cup and again more durable
- 100% clear – this ensures the shingle is free of defects such as knots

### Size:

They are in random widths varying from 75mm to 300mm. They are produced in 3 lengths. The most typical shingle is the FiveX or XXXXXX.

- FiveX or XXXXXX – 400mm (16") Shingles > Stocked Product
- Perfections – 450mm (18") Shingles > Special Order
- Royals – 600mm (24") Shingles > Special Order

### Lifespan and Durability:

Shingles are naturally durable. John Brash has over 75 years experience in importing Cedar Shingles and for maximum life expectancy recommends the shingles are preservative treated. John Brash MicroPro treated shingles have a 40 year lifespan warranty.

MicroPro® is a preservative system incorporating micronized copper and co-biocides to create a wood preservative with enhanced technical performance and distinctive environmental and aesthetic product features, when compared to other current copper based systems. Some preservative treatments can darken the shingle. MicroPro® is almost clear with a faint green wash that allows the shingle to weather naturally to a silver grey colour.

### Fire:

In some instances Cedar Shingles may require treatment with a fire retardant. JB FRT Exterior treatment gives the Cedar Shingle an AA P60 rating to BS476 pt 6:1997 – as good as a clay tile. This treatment also meets BS467 class 0 when used for vertical cladding.

Always check with LABC when using shingles near a boundary even if there is no building close by. Generally fire retardant treatments are required when building within 5m of the boundary of the site. However, Building Regulations vary around the UK and advice may need to be taken.

### Sound:

Western Red Cedar is particularly effective in a sound-damping capacity and provides effective, economical sound insulation.

### Insulation:

Due to Western Red Cedar's low density and coarse texture it has good insulation properties. Western Red Cedar is recognised as the best thermal insulator amongst the commonly available softwoods, and is far superior to brick, concrete and steel. It is widely used in saunas because of its low thermal conductivity; with a value of  $K=0.1067 \text{ W/m}^\circ\text{C}$  at 12% moisture content.

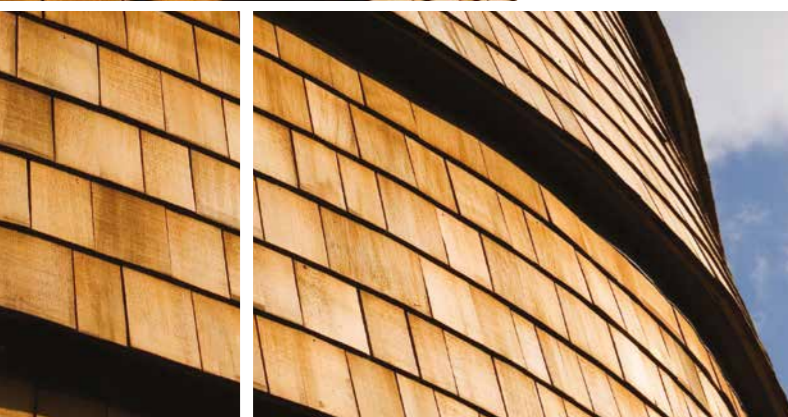
### Climate:

Shingles are resistant to frost and nail impact. Once installed they are resistant to high winds exceeding hurricane force. (Each shingle is nailed twice)

### Ventilation:

John Brash recommends Roll Vent, a relatively new ventilation product to the UK market but one that has been available in the USA for many years. It is used where both ridge and eave ventilation is required.

Roll Vent complies with the requirements in the UK. This product gives a nett free area of  $38,100 \text{ mm}^2$  per m (building regulations  $5000 \text{ mm}^2$ ) and should be installed in a balanced system. Full technical details are available on request. Roll Vent is simple to install. Extra wide ridge units should be used with this product.



# Estimating and Coverage

Cedar Shingles are supplied in bundles. The coverage depends on the application:  
5X

Coverage by application table

USE	Max Gauge	Coverage m <sup>2</sup> per bundle	JBRED 25x38 battens per m <sup>2</sup>	Silicon Bronze Nails	JB Shingle Fix SS Staples	Laid weight kg/m <sup>2</sup>
Vertical Cladding, 90deg	190mm	3.47m <sup>2</sup>	5.3 metres	0.05 kg per m <sup>2</sup>	0.023 box	4.6 kg
Roofs 22-89 deg	125mm	2.28m <sup>2</sup>	8.0 metres	0.08 kg per m <sup>2</sup>	0.035 box	7.0 kg
Roofs 14-21 deg	95mm	1.73m <sup>2</sup>	10.5 metres	0.1 kg per m <sup>2</sup>	0.046 box	9.3 kg

All quantities are exact, an allowance should be made for waste and cutting.

Coverage by product table

Product	Qty of pieces per box/bundle	Coverage m <sup>2</sup> per bundle	Number of bundles
1 bundle of shingles	120 approx*	1.73 – 3.47m <sup>2</sup> dependent on roof gauge (refer to above table)	N/A
1 kg of silicon bronze nails	1450	N/A	6
1 box of JB Shingle Fix Staples	3000	N/A	12.5

\*quantity will vary from bundle to bundle due to the nature of varying widths

1 bundle of shingles is required for 18 metres of starter course.

1 bundle of shingles is required for 7.5 metres of Hip & Ridge (Traditional method)\*.

These are exact quantities. Allow extra for cutting and waste. For a simple roof this is around 5% but for complex structures (ie Octagonal Roofs this could be over 30% where there is a lot of cutting)



# Additional Information

## Hip and Ridge Capping



John Brash supply pre-formed Hips and Ridges. These speed and simplify installation. Each bundle has 36 pieces, 18 right hand and 18 left hand mitres. These are fixed alternately as the same gauge as the roof.

USE	Max Gauge	Coverage m per bundle	Silicon Bronze Nails
Roofs 22-89 deg	125mm	4.5 m	0.05 kg per m
Roofs 14-21 deg	95mm	3.4 m	0.065 kg per m

## Nails

For maximum life, fixing should be made with 2 no. 31mm x 1.8mm silicon bronze annular ring nails per shingle. As a guide approximately 1kg of nails are required to fix 6 bundles of shingles.

Hip and Ridge Capping require a longer 44 x 2.3mm Silicon Bronze Nails. Each Hip and Ridge requires 4 nails. 144 nails are required for 1 bundle of Hips and Ridges. 1kg is required for 3 bundles of Hip and Ridge Cappings.

For large projects John Brash recommends the use of JB ShingleFix S16x38mm Stainless Steel Staples. As a guide approximately 1 box of 3000 staples are required to fix 12.5 bundles of shingles.

\* 'Traditional method' is when two shingles are used to make a Hip & Ridge in which case more shingles are required. Alternatively Hips & Ridge Capping's are available from John Brash.



# Installation

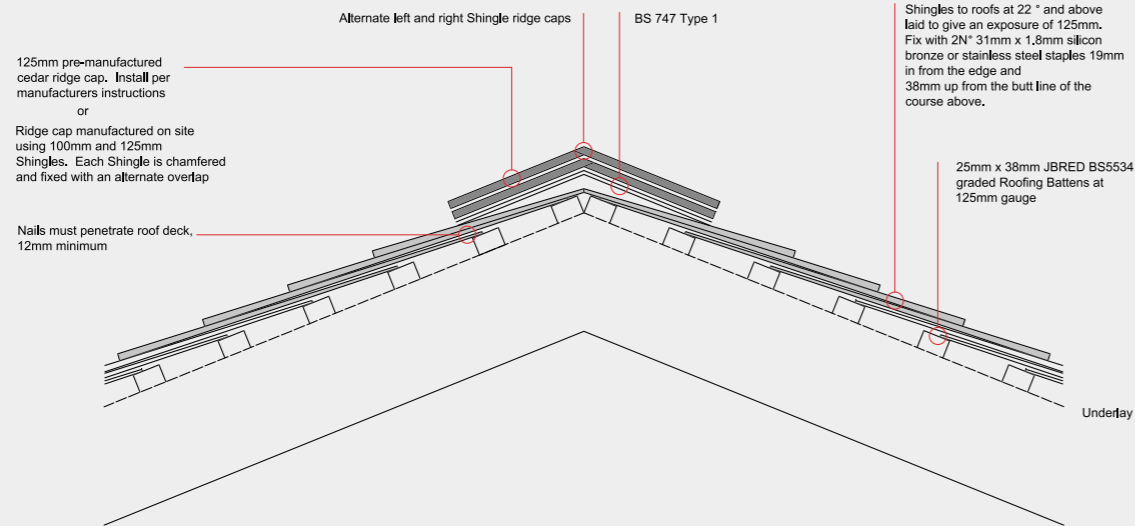
The shingles should be fixed at the appropriate gauge directly onto roofing battens. A double course of shingles should be used as a starter course at the eave. The shingles should project at least 38mm beyond the eave protection or if a gutter is used at least to the centre line of the gutter. They should extend 38mm over the verge or gable moulding/barge board.

The shingles shall be spaced 6mm apart and be nailed or stapled twice, the nails/staples should be fixed 19mm in from the edge and 38mm above the butt of the course above.

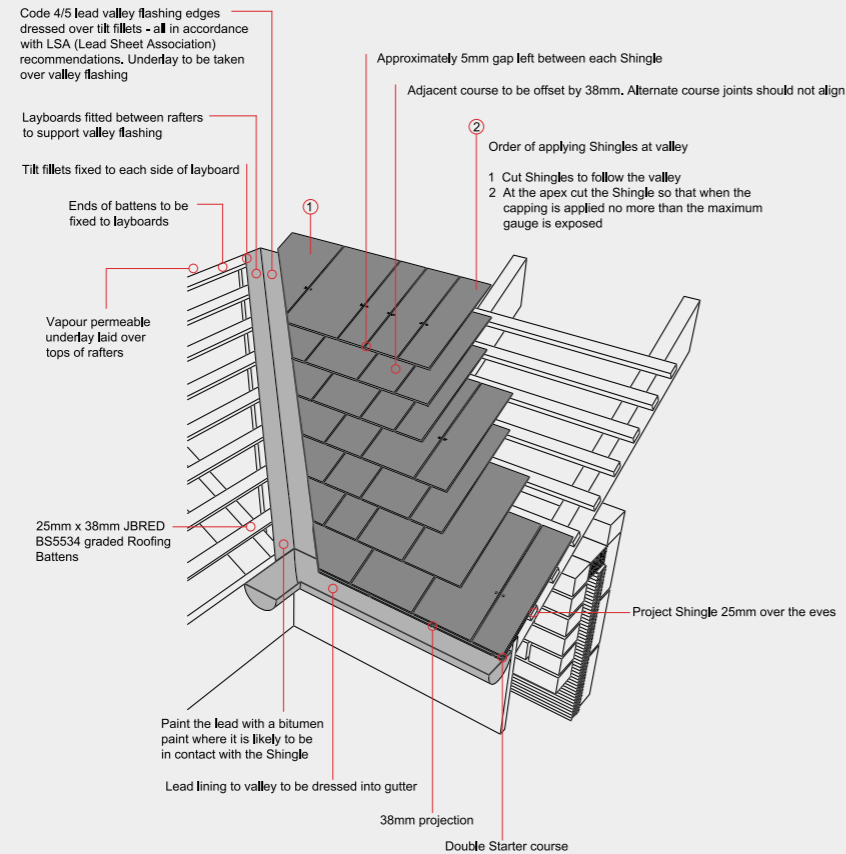
Joints in any one course should have a side lap of not less than 38mm from the joint in adjacent courses and in any 3 courses no 2 joints should align. Battens should be strong and stiff enough to withstand the proposed loading and provide adequate fixing and alignment.

They should comply to BS 5534:2014. John Brash recommends JB-RED factory graded battens, 25x38. A vapour permeable type underlay that meets annex A BS5534:2014 is recommended.

## Roof Ridge Without Ventilation:



## Cold Roof Construction:



## Shingle Fix

JB ShingleFix is a unique fixing system exclusively available from John Brash designed to cut the installation cost of a Western Red Cedar shingle roof. Independent tests witnessed by the NFRC and recently completed projects have confirmed the system. This system is suitable for all project sizes.

Using JB ShingleFix to install shingle roofs, projects have seen reductions of up to 65% for low pitched roofs (95mm gauge) and 50% for standard roofs (125mm gauge)\*.

JB ShingleFix uses specially designed stainless steel staples to fix the shingle instead of using the traditional silicon bronze nail. These can only be used with our recommended Paslode staple gun.

JB ShingleFix is available to hire or buy direct from John Brash.

\*excluding felt & battens.

For more details including warm and low pitched roofs consult the John Brash website or call technical sales on 01427 675588.

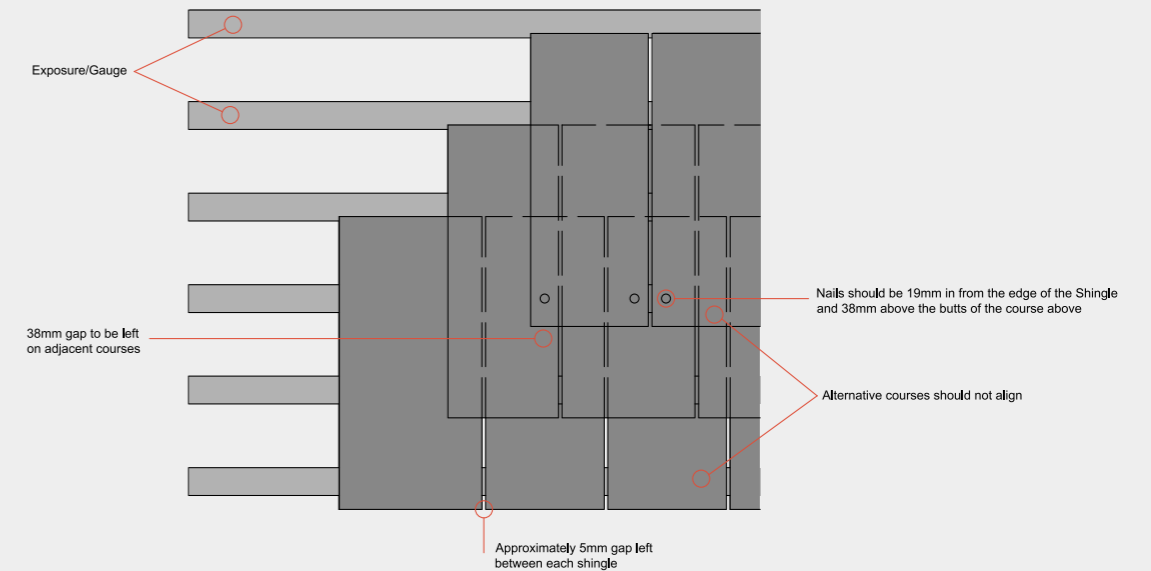
## Check List and Ordering:

- Certi-grade label
- Hip & Ridge Units
- JB shingles
- Treatment guarantee
- JBRED Batten
- Silicon Bronze Nails or JBShingleFix

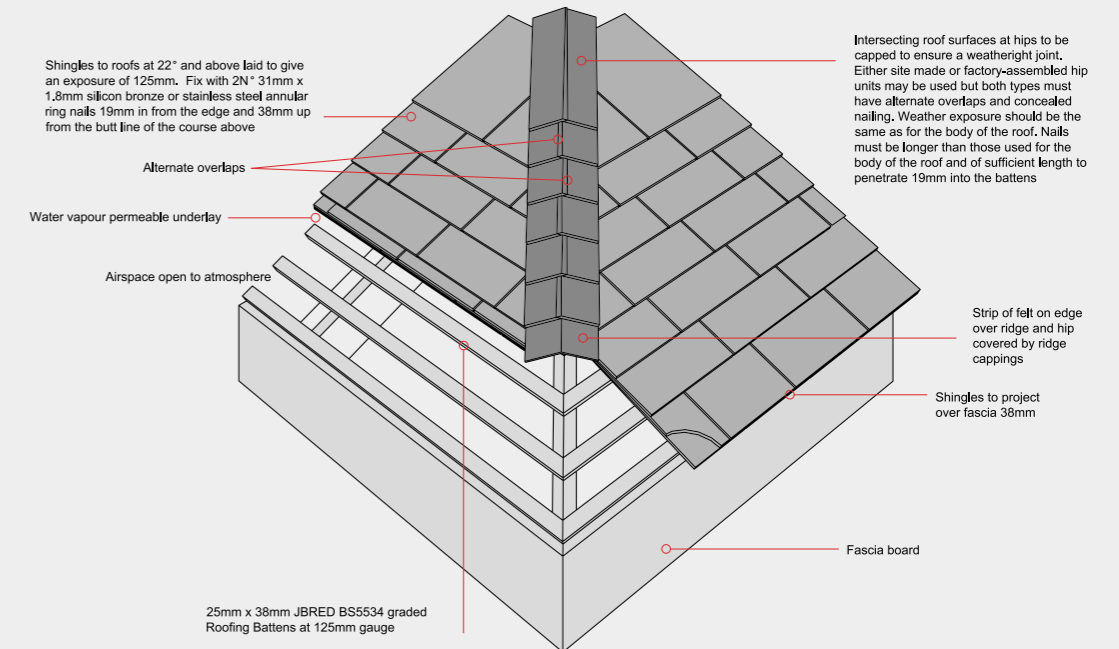
For more information on ShingleFix view our installation video here



## Cedar Shingles Fixing Details:



## Hip Details:



## FAQ's

- **Can shingles be fixed directly to ply or sarking boards?**  
Yes, this is a popular fixing method in the USA and Canada. We recommend using battens and counter battens with a membrane to allow adequate air flow.
- **How long do shingles take to weather to silver?**  
You should notice the shingles change colour from a golden brown to a silvery grey 12 months after installation dependant on how much exposure to sunlight they will have.
- **What is the difference between a shingle and a shake?**  
A shingle is sawn and a shake is split
- **How many bundles in a m<sup>2</sup>?**  
The coverage charts are in this guide.
- **How much do the ridges cover?**  
The coverage charts are in this guide.
- **What is the difference between blue label and red label shingles?**  
The red label is a lower quality.
- **Do I need to use preservative treated shingles?**  
No, however preservative treatment gives a guaranteed performance at a low additional cost.
- **How long will the shingles last for?**  
Preservative treated guaranteed 40 years, FRT treated expected service life 40 years, untreated expected service life 20-40 years.
- **My shingles were installed a long time ago, what do you recommend I paint them with to prolong their life?**  
We don't recommend any post installation treatments.
- **How do I finish the edges of the shingles?**  
They are left unfinished extending 38mm over the board.
- **Do I need to use a breathable membrane?**  
No, however John Brash recommends the use of a vapour permeable type that meets annex A Bs5534:2014.
- **Do I need to use counter batten?**  
Only when installing over a solid roof.



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