BITUMEN SHINGLES - FIXING INSTRUCTIONS

Preparation:

Remove any old roofing material and dispose of it safely. Check that the roof decking is both clean and in good condition and replace any sections that show signs of rot or worm infestation. If installing a new deck then use 18mm exterior grade (WBP) plywood or OSB boards. Never use chipboard. New boards should be installed in a chequered pattern with a 3mm spacing between all edges to allow for expansion. Secure the boards with good quality rust proof screws or ringshanked nails.

Underlay:

It is essential to use an underlay beneath roofing shingles to maximise the lifespan of the roof. The type of underlay required is dependent on the type of building. For permanent structures such as garages and workshops use a High Performance Underlay. For Garden sheds and other similar buildings it may be more economical to use a Traditional Underlay. For roof pitches greater than 20° lay the underlay in horizontal strips starting from the eaves. An 80mm horizontal overlap is required and end laps should be not less than 150mm. See Fig. 1 Secure the underlay using sufficient galvanised felt nails to hold it in place, ensuring that the underlay is as flat as possible. The nails used to install the shingles will further secure the underlay. For roof pitches between 15° and 20°, 2 layers of underlay are required. For the first layer, start with a 500mm wide strip of underlay at the eaves. See Fig. 2

General Fixing:

Before starting to fix any shingles it is a good idea to plan the installation and carefully mark chalk lines on the underlay, both horizontally and vertically. These will help to maintain straight lines during fixing. **See Fig. 4** For roof pitches from 15° to 60°, in conditions of standard exposure to prevailing weather, shingles should be nailed 25mm from each end, with additional nails positioned above the centre of each cut out. The line of the nails should be 25mm above the top of the cut outs. **See Fig. 3** Nails used should be 20mm long galvanised clouts. Longer nails will penetrate the back of the decking and should not be



used. For conditions of severe weather exposure and for steep roof pitches, over 60°, use 2 nails above each cut out, spaced 50mm apart. It may be desirable to increase the overlap of the shingles on roofs with a low pitch, below 25° or to provide additional weather protection in areas of high exposure. For the first course of shingles, start from the bottom corner, fixing full shingles along the entire width of the roof. **See Fig. 4** Repeat this process on all odd numbered courses.

For the second course and all subsequent even numbered courses, start with a piece of shingle which has been reduced in length by half of a tab width, thus maintaining a broken bond appearance. Do not use pieces of shingle which are less than one full tab in width. Leaving a 2mm gap between the ends of the shingles will allow for making small adjustments to their alignment. The bottom edge of the shingle should be positioned so as to just cover the cut out between the tabs in the course below it. A small blob of Lap mastic placed under the corner of each shingle tab will provide additional security of fixing. This is particularly recommended in all areas around the perimeter of the roof; however, avoid overuse which could run down the roof.

Hips and Ridges:

Hips and ridges are formed by cutting shingles into individual tabs. Each shingle tab is then used to form an individual ridge shingle. **See Fig. 5** Carefully bend the ridge shingle over the centre line of the ridge. Once in position nail it in place on both sides of the slope, ensuring that the nails are located so that they are covered by the overlap of the next ridge shingle. The leading edge of each ridge shingle should be secured using Lap mastic. Always lap ridge shingles away from the prevailing wind direction.

The procedure is the same for both hip and ridge. Always complete the installation of the hip before commencing with the ridge. In cold weather, to prevent cracking, warm the ridge shingles before bending them. The use of a hot air gun is advisable, but never use any device with a naked flame.

Eaves and Verges:

See Fig. 6 Starter row shingles are made by cutting the tabs off a regular shingle. Start with a half length and continue along the entire length of the eaves. When installing the first full course of shingles at the eaves and verge, carefully bend the shingles down over the edge of the deck by 25mm and secure at 50mm centres. If necessary, gently warm the shingles to avoid cracking them. The tabs removed from the starter row can be used to cover the sloping verge. The verge shingles should be turned down 50mm over the roof edge and secured at 50mm centres. If a barge board is present on a garden building, it should be removed and reinstated when the shingles have been installed.









Valleys:

Start by installing an additional continuous strip of underlay up the length of the valley from eaves to ridge. This should be a minimum of 900mm in width and will provide additional protection for the decking. See Fig. 7 First fix the shingles on the roof slope with the lowest pitch and lay the shingles across the centre line of the valley and onto the opposite slope, by at least 300mm. Press the shingles tightly into the valley and ensure that there are no fixings within 150mm, or butt joints within 300mm, of the centre line of the valley. Mark a chalk line, on the shingles installed on the lower pitch roof slope, down the centre of the valley. The shingles on the steeper roof slope should be cut closely to a chalk line set 50mm back from the centre of the valley. When fixing ensure no nails are positioned closer than 150mm to the centre of the valley and secure the cut edges with a 75mm wide strip of Lap mastic applied to the underside of each shingle.



General working procedures:

Whilst working at height take all precautions to prevent injury due to falls, or from falling objects which may injure others below. Shingles should not be installed if the temperature falls below 5°Celsius. Gently flex bundles of shingles before opening the pack, this will make separation easier. Do not remove the film on the back of the shingles, this is provided only to prevent the shingles sticking together during transport and storage.

When installing multiple packs of shingles on larger projects it is advisable to mix shingles from different packs in order to avoid any possibility of patterns caused by variations of shading. Use only the recommended fixings and never fully bond shingles in any adhesive.

Avoid standing on the shingles in hot weather before, during or after installation.

Do not install on roof pitches below 15°