

Armourglass Square Butt Shingles



Product Guide

Bitumen shingle developed to meet the needs of roofers across Europe.

March 2010

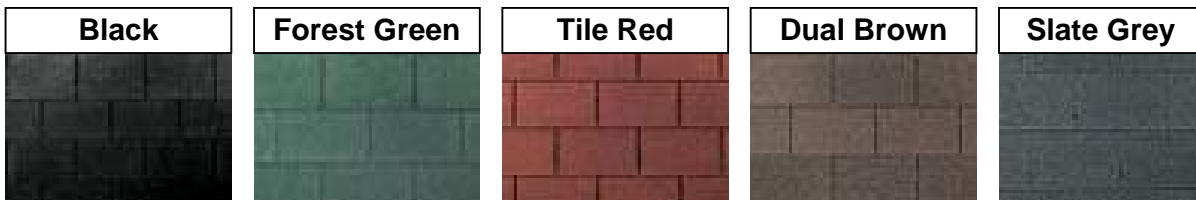
Introduction

Armourglass Roofing Shingles are lightweight, glass fibre based bitumen strip slates. They are easily installed and give the appearance of a highly decorative tiled roof finish. Roofing Shingles can be used on a wide variety of buildings, temporary or permanent, and have proved immensely popular with both professional and DIY Installers alike.



Features

- Long Lasting Weatherproof Protection
- Highly Decorative and Flexible
- Economical
- Easily Installed
- Self Adhesive strip
- SAA Fire Rating BS 476: Part 3 2004
- Complies with Class 1 EN544 *Bitumen Shingles with mineral and/or synthetic reinforcements. Specification and test methods.* Manufactured under Quality Management scheme to ISO 9001/2000.



Product Dimensions	Armourglass Roofing Shingles Square Butt
Pack Weight kg	32.4
Pack Coverage m ²	2.62 (Normal exposure) 15° - 25° 2.62 (Severe exposure) 30° - 85° 3.00 (Normal exposure) 25° - 85°
Strip Slate – Depth mm - Length mm	336 1000
Strips Per Pack	21
Tabs Per Strips	4

Suitable Decking: - laid 15 to 85 degrees.
18mm Exterior Grade Plywood
18mm OSB 3 Conditioned Decking
18mm Tongue and Groove Timber Boarding
25mm Plain Edge Timber Boarding
Do not use chipboard (including pre-felted) as the decking for Roofing Shingles.

Ventilation to insulated roofs -Ventilation must be provided above insulation to prevent condensation.

For Cold roofs with a large void above the insulation situated at ceiling level, the ventilation should be equivalent to a continuous strip 10mm wide at low level and 5 mm at the top of each span. In warm roofs situations the low



level ventilation needs to be increased to 25mm with continuous 50mm deep pathway to the Hi-level 5mm vent. Insect guards to be fitted throughout. IKO ARMOURVENT® MULTI Ridge vent system is ideal for this purpose. Always specify a vapour control layer to the warm side of insulation in heated buildings. Please contact Technical Services if the building is to be used as shower block, swimming pool hall, sauna or for a similar high humidity purpose.

The design and construction of the roof should comply with BS 5534:2003 *Code of practice for slating and tiling (including shingles)* & BS 5250:2002 *Code of practice for control of condensation in buildings*.

Materials and tools needed

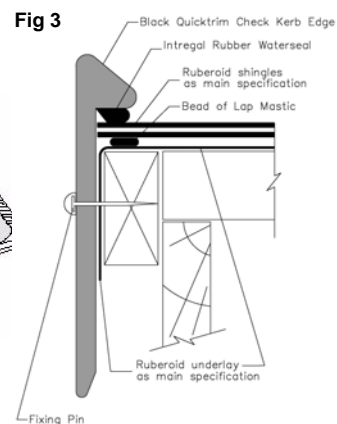
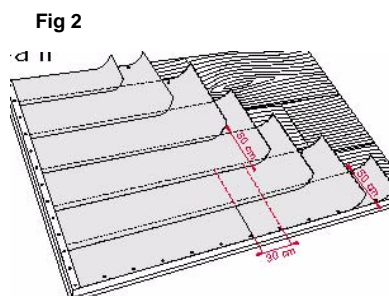
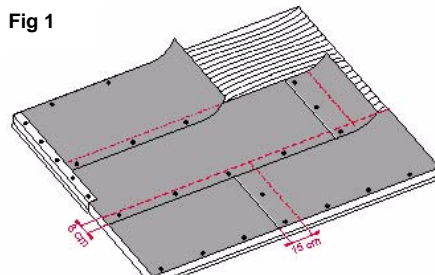
- Metal drip edge (1mm thick zinc roofing strip 150 - 200mm wide is ideal) to be fixed at the eaves at minimum 300mm centres below the underlay.
- Ruberoid Glasphalt 3B sand surfaced underlayer on all pitches (For low pitches of 15 to 20 °, two layers are needed)
- Quicktrim Check Kerb Edge for the sloping verge.
- 25 mm Galvanised zinc large headed clout nails for the general roof area.
- 30 mm Galvanised zinc large headed clout nails for fixing ridge and hip detail tabs.
- Ruberoid Lap Mastic 310ml cartridge applied using a skeleton gun, for sealing the shingles at details and metal eaves drip edge.
- The Quantity of Shingles needed depends on pitch and exposure. See table on front page. For the definition of Severe exposed sites refer to BS 5534:2003 and BS 8104.
- If the roof pitch is between 15 and 25 degrees the gauge (the visible portion of the strip should be reduced from 143mm down to 130mm.
- Armourglass square shingles. On a simple apex roof allow an extra 15% for detailing and wastage.
- Chalk line/knife/trowel/straight edge.

Nailing & Sealing

- The nails must be driven in straight so that the heads are flush with, but not cutting into the shingle surface. Fig 4.
- Always nail 25mm above the cut out and 25mm from each edge.
- If the slope exceed 60° or the site is Very severe exposed the extra nails are necessary. The nails should be in pairs 25mm above the cut out and 50mm apart. Fig 5. (Exposure as defined in BS 8104).
- If the pitch exceeds 60° or the site is Very severe exposed then a small blob of Ruberoid Lap Mastic must be applied under each corner. Fig 5. (Exposure as defined in BS 8104)
- If the site is severe exposed then the minimum pitch should be 30 degrees.
- If the site is severe exposed the gauge (the visible portion of the strip should be reduced from 143mm down to 130mm.
- If the shingles are applied below 10° centigrade then apply small blobs of lap mastic under the corners of the tabs. Do not lay Shingles at temperatures below 5° centigrade. Fig 5.
- If the site is severe exposed then apply small blob of Ruberoid Lap Mastic under each corner of the tabs to the top 5 courses of shingles.

Application

- Start at the eaves by first fixing, at no more than 300mm centres the metal drip strip. The strip should extend at least 80mm up the slope and be bent down to either drain into the half round gutter or back out of harms way.
- For roofs with pitches above 20 degrees. Lay the single layer of Glasphalt 3B sand underlay. See Fig 1. It should be laid as flat as possible. Starting at the eaves, lay with 50mm horizontal lap and 100mm end laps. Secure the Glasphalt 3B with only enough nails to hold it in place. The Shingles themselves will hold it in position.
- For roofs with pitches of 15 to 20 degrees then 2 layers of Glasphalt are needed. See Fig 2. Cut a 500mm starter strip first to be laid at the eaves.



- Eaves detailing is carried out by using a starter course of shingles that has been prepared by cutting the shingle tabs along the line level with the top of the cut outs. Begin the starter strip by cutting the strip half a tab short so that its joint will not line up with the joints of the first full course of shingles. The starter strip should overhang/project beyond the metal drip edge at the eaves by 10mm. Fig 6.
- Start with a complete shingle applied flush with the starter strip at the rake and eaves. Fig 6.
- For standard pitches and exposure nail 25mm above the cut out and continue across the roof with full shingles. Fig 6.
- Second course: Cut half a tab from the shingle and start at the sloping verge end. Nail the shingle so that the lower edge of the tab is flush with the top of the cutout of the shingle in the first course. Fig 6.
- Third course: Start the third course with a shingle from which a full tab has been cut. Cut off an additional half tab for each succeeding course. Fig 6.
- Always apply a bead of lap mastic under the shingle over the GRP trim at the sloping verge.
- During installation, nails must be positioned 25mm directly above each cutout and 25mm in from each edge. Nails must be square and the head flush with the surface of the shingle. See Fig 4. Leave a 2mm gap between each shingle to allow for minor adjustments. When fixing shingles to steep slopes ($> 60^\circ$), or in high wind uplift areas, nails should be positioned one either side of the cut-out and 25mm above. Small blobs of lap mastic must also be applied to the corners of individual square butt tabs.
- At the verge fix the Quicktrim to seal and secure the Shingles using the special fixing pins.
- Shingle tabs will self-seal by the heat of the sun, but if laid below 10°C apply adhesive under the corners of the tabs. Fig 5.

Fig 4



Fig 5

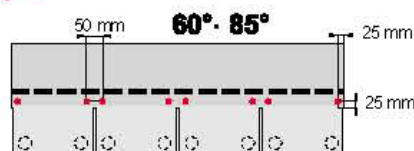
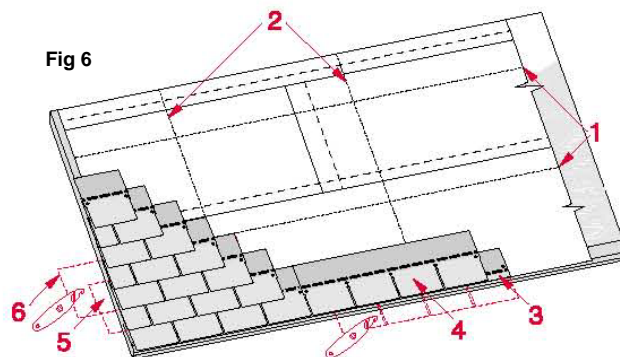


Fig 6



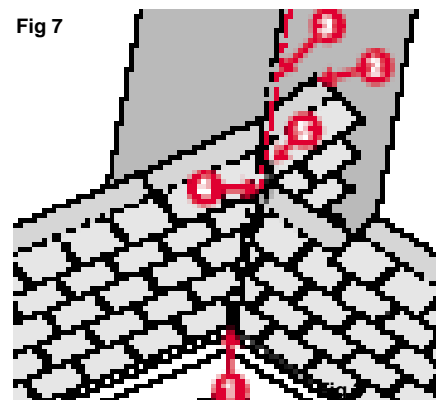
Underlay preparation in valleys.

- Cover the valley with the 1m wide Glasphalt 3B underlay. Vertical laps if unavoidable should be a minimum of 300mm and sealed with lap mastic. Nail at 400mm intervals 25mm from the edge. Then lay the main roof underlay so that it goes over the valley and overlaps the adjacent roof plane by 300mm. Cut this parallel to the valley, then seal with lap mastic. The underlay on the opposite roof plane would similarly overshoot the valley by 300mm and would also be cut parallel and then be sealed with lap mastic. Do not nail within 150mm of the valley centreline.

Shingle application in valleys

- Closed cut method: Fig 7
For best performance, start applying shingles on the roof plane with the lower slope or biggest surface. The starter strip must be woven (extend 250mm onto adjoining roof plane) Do not nail within 150mm of the valley centreline. Use one extra nail at the end of each shingle crossing the valley. After completing this roof plane, snap a chalk line 50mm from the centre line on the roof plane still to cover. Apply the shingles onto the second plane, trim shingles to the line and cut a 50mm triangle off the top corner to direct water into the valley. Glue the valley end of each shingle with Ruberoid Lap Mastic. Do not nail within 150mm of the valley centreline. Always arrange layers so that water can run unobstructed to the gutter.

Fig 7



Hips and Ridges

- Adjust the last few courses of shingles so that the ridge capping will adequately cover the top courses of the shingles equally on both sides of the ridge.
- Ridges and hips are detailed by cutting and folding individual shingle tabs. Fig 8.
- Apply the hip and ridge shingles double thickness by stacking two pieces and bending them gently over the ridge.
- Start application from the end of the ridge opposite the direction of the prevailing winds. Fig 9.
- Nail the capping 160mm from the tab edge and 25mm from each side. Cover the two final exposed nail heads with blobs of Ruberoid Lap Mastic.

Fig 8

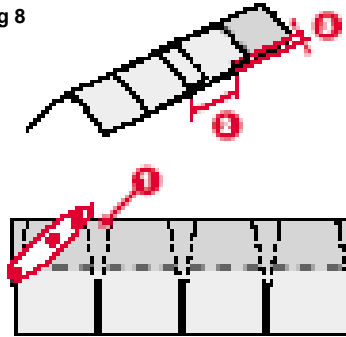
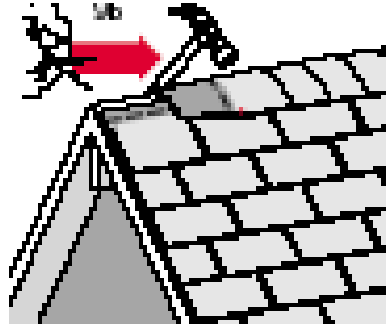


Fig 9



Notes: -

When working at height take precautions to prevent injuries due to falls or falling objects injuring people below.

Bend bundles before opening to make separation easier.

Do not attempt to remove the film on the back of individual shingles. It is there to stop the shingles sticking together during transport. It should be left intact.

Try to use shingles from the same batch. If that's not possible carefully mix strips from different packs/batches to avoid undesirable patterns on the roof.

Do not use Roofing Shingles on roof slopes below 15° pitch.

Handle shingle strips carefully in cold conditions, to prevent cracking or breaking.

When applying ridge details in cold conditions, tabs should be warmed before folding.

During hot sunny weather, avoid stepping on the shingles on the sunny side of the roof to prevent marking.

Roofing Shingles are designed to be nail fixed only, do not use staples, do not fully bond Roofing Shingles in any adhesive.

Other products

Full product literature, health & safety and technical sheets are available as downloads from our website www.ikogroup.co.uk or on request by email: marketing@ikogroup.co.uk

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