IKO ARMOURGLASS PLUS SHINGLES

PRODUCT INFORMATION

IKO Armourglass Plus Shingles are lightweight, glass fibre based bitumen strips, installed to give the appearance of a highly decorative roof finish.

The product is a traditional roof covering material for boarded pitched roofs between 15-85°.

Colour	Product Code
Black	70020201
Dual Brown	70020207
Tile Red	70020210
Slate	70020231
Amazon Green	70020203

USE

IKO Armourglass Plus Roofing Shingles can be used on a wide variety of non-habitable garden buildings.

FEATURES & BENEFITS

Weather resistant - product acts as the primary waterproofing layer within a boarded pitched roof arrangement.

Robust - has a life expectancy of up to 10 years.

PERFORMANCE & COMPOSITION

Composition:	Bitumen
Form:	Strip
Carrier:	Glass fibre
General Dimension Data	
Strip Length:	1000mm
Strip Width:	336mm
Strips per pack:	14
Tabs per strip:	4
Pack Coverage	
Normal Exposure* at 15-25°:	1.82m^2
Normal Exposure* at 25-85°:	2m^2
Severe Exposure* at 30-85°:	1.82m^2
Performance Data	
Tensile Strength (width):	≥600 N/50mm
Tensile Strength (height):	≥400 N/50mm
Nail Shank tear resistance:	≥100 N
Reaction to Fire:	E
Water Permeability:	
Bitumen	1149 ± 150g/m2
Finish Adhesion:	≤ 2.5g
Water absorption:	< 2%

*Exposure as defined within guidance of BS8104:1992

INDEPENDENT ACCREDITATION

CE

00202-CPR-SH2-001

The product carries a Declaration of Performance Certificate.

SPECIFICATION

All construction detailing and specification should conform to UK Building Regulations, relevant Codes of Practice and British Standards.

In particular it is recommended that reference is made to the relevant parts of:

BS 5534:2014+A2:2018 Slating and tiling for pitched roofs and vertical cladding - Code of practice
BS5250:2011 Code of practice for control of condensation in buildings
BS 8000-6:2013 Workmanship on building sites - Part 6: Code of practice for slating and tiling of roofs and walls

Particular attention should be made to ensure roof installations are ventilated as per the recommendations of BS 5250:2011.

Where required by building warranty providers i.e. NHBC, LABC, etc. installers and those undertaking specifications should seek guidance from Technical Standards as issued by the provider in addition to the above.

If required, please consult with IKO Technical Services.

SYSTEM COMPONENTS

IKO have a range of essential system components, specifically tailored to facilitate the use of the IKO Shingle systems within pitched roofing.

The following represents the system components available as part of that range:

IKO Glass Fibre Underlay - a waterproofing membrane, consisting of a 60g/m² glass fibre base coated with oxidised bitumen. It is sand finished on both surfaces.

IKOpro HP (High Performance) Felt Lap Adhesive - a cold-applied bitumen adhesive which enables bonding of roofing felt laps.

IKO Flash - is a lead free flashing system made from modified polyethylene compound, with integral aluminium mesh reinforcement and faced with a fine grey mineral. IKO Flash can be used for abutment flashings.

IKO Armourvent Multi/Multi Plus - is a profiled ventilation strip for use at the ridge position in a ventilated pitched roof arrangement.

SITE STORAGE

Material should be checked to ensure that it conforms to the project specification and should be handled with care to avoid damage.
Packs should be stored flat on a firm, clean base protected from direct sunlight. Handle shingle strips carefully in cold weather to prevent cracking and breaking of the bitumen coating.

CONSTRUCTION

PRIOR TO COMMENCEMENT

Application must always follow good, safe working practice.

Prior to commencing works, it is advisable to consult Health and Safety Executive Guidance documents such as HSG33 ‘Health and Safety in Roof Work’, irrespective of levels of competence, to ensure all works are being planned and undertaken in a safe, pragmatic manner.

Install shingles in site temperatures that are 5°C and rising.

PREPARATION

Before commencing installation work, the following should be checked.

- Materials are of the correct specification against issued design criteria;

- The shingles are from the same batch - where this is not possible, carefully mix strips from different batches to avoid undesirable patterns on the roof;

- The roof structure is structurally sound, secured and braced;

- Suitable decking has been provided i.e. 18mm Exterior Grade Plywood, 18mm OSB 3 Decking, etc.

Important note: Chipboard decking should not be used as the roof decking material.

- Roof structure is set to the required pitch; roof shingles should not be installed below 15°;

- Pre-existing roof structures should be checked for sharp objects and protrusions which may impede or damage the roof shingle system i.e. nails.

GENERAL FIXING - UNDERLAY

IKO Armourglass Plus Roofing Shingles must be installed over IKO Glass Fibre Underlay in all situations; this is laid parallel to the eaves with an 80mm side overlap and 150mm end laps. It is fixed using large headed clout nails at 300mm centres along overlaps, with perimeter edges fixed at 150mm centres.

Do not use staples and do not fully bond in adhesive.

On buildings with low pitches of 15 to 20°, 2 layers of underlay must be used, laid to a staggered bond pattern.

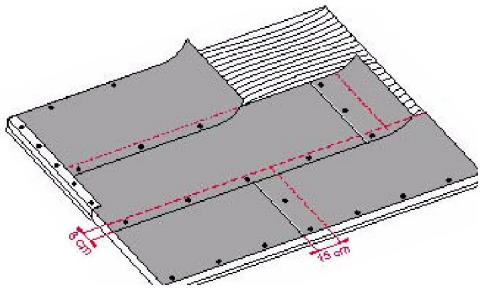
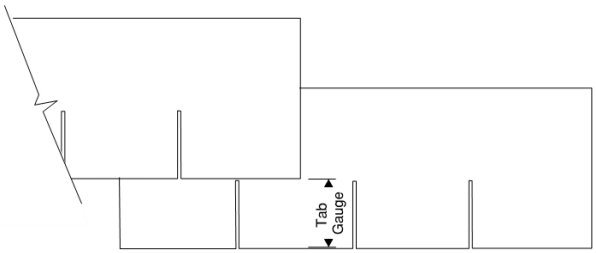


Figure 1 - Installing the underlay

SETTING THE GAUGE

When installing shingles it important to identify the exposure of the site and the pitch of the roof, as these factors will determine both the tab gauge of the shingle and the appropriate fixing method.

The tab gauge requirements are illustrated below:



Exposure	Pitch	Tab Gauge
Normal	15-25°	130mm
Normal	25-85°	143mm
Severe	30-85°	130mm

When setting the gauge, you will note a tabulated strip just above the nailing line. Over time, this line will self-bond to the underside of the shingles above however this process is affected by temperature. When installing at temperatures between 5°C and 10°C supplementary adhesive to shingle tabs may be required (see Figure 3).

Note: On the underside of the strip, you will note a clear plastic film. This film is placed to ensure that self-bonding is not triggered in the pack during transportation. On pack opening and separation, the strip should not be removed.

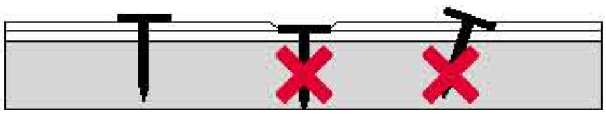
GENERAL FIXING

Shingles should be installed at 15° and above. The product must be nailed.

Do not use staples and do not fully bond in adhesive.

During hot sunny weather, avoid stepping on installed shingles to prevent foot marking. During cold weather, when undertaking detailing such as folding and bending, shingles can be gently warmed with hot air to reduce cracking risks.

Nails must be galvanised zinc large headed clout nails and of a suitable length determined by application and deck thickness (typically this would be 20mm for 18mm Exterior Grade Ply or 18mm OSB 3). Nails must be driven straight so that the heads are flush with, but not cutting into the shingle surface, as illustrated below.



On roofs subjected to normal exposure conditions at pitches between 15° and 60°, roof shingles should be fixed with galvanised zinc large headed clout nails, 25mm above each cut out and 25mm in from each edge (Figure 2). Roofs between 60° and 85° should be installed in line with guidance for roofs subject to severe exposure (Figure 3).

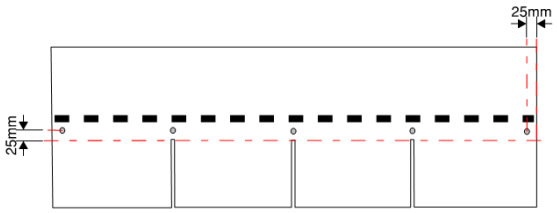


Figure 2 - Installing the shingle

On roofs subject to severe exposure conditions, shingles should only be used at pitches between 30° and 85°. In this situation, roof shingles should be fixed with two galvanised zinc large headed clout nails, paired at a 50mm spacing centrally located above the cut out and 25mm in from each edge. Additionally the underside of the corners of each tab should receive a 10mm spot application of **IKOpro HP (High Performance) Felt Lap Adhesive** (Figure 3).

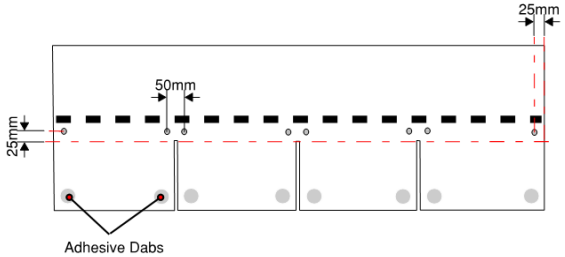


Figure 3 - Additional provisions

In all instances, the shingles should be laid with a 2mm gap between the ends of each strip to allow for minor adjustments.

DETAILING

IKO Shingle strips are used to create detailing all around the roof area inclusive of the ridge, hips, and valley detailing.

In depth and fully illustrated detailing advice for these areas can be found within the following guidance literature:

- ‘Smarter up Top’ Roofing Shingles Selector and Fixing Guide’.

POST COMPLETION

DURABILITY

When installed and conditions are maintained as per IKO literature, relevant Codes of Practice and UK Building Regulations, the system will have a life expectancy of up to 10 years.

DISCLAIMER

Whilst every precaution is taken to ensure that the information given in this literature is correct and up to date it is not intended to form part of any contract or give rise to any collateral liability, which is hereby specifically excluded. IKO reserve the right to amend and/or withdraw this document without notice.

Intending purchasers of our materials should therefore verify with the company whether any changes in our specification, application details, withdrawals or otherwise have taken place since this literature was issued.