IKO ARMOURSHIELD HEXAGONAL SHINGLES

PRODUCT INFORMATION

IKO Armourshield Roofing Shingles are lightweight, glass fibre based bitumen strips, installed to give the appearance of a highly decorative hexagonal tiled roof finish.

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

Colour	Product Code
Black	70060201
Forest Green Ultra	70060224
Dual Brown Ultra	70060207
Tile Red Ultra	70060220
Granite Grey	70060228
Amazon Green	70060223



USE

IKO Armourshield Hexagonal 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.

Tried & Tested - product complies with Class 1 EN544: 2011 Bitumen Shingles with mineral and/or synthetic reinforcements; Specification and test methods.

PERFORMANCE & COMPOSITION

Composition:	Bitumen
Form:	Strip
Carrier:	Glass fibre
General Dimension Data	
Strip Length:	1000mm
Strip Width:	318mm
Pack Weight:	28.5Kg
Strips per pack:	22
Tabs per strip:	3
Nominal Thickness:	4mm (+-5mm)
Pack Coverage:	2m^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	≥1300 g/m^2
Finish Adhesion:	2.5g
Water absorption:	<2%

INDEPENDENT ACCREDITATION

CE

00602-CPR-SH1-001

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+A1:2015 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.
Material should be unloaded and handled with care to avoid damage. It 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.

Do not lay shingles if site temperatures are at 5°C and falling.

PREPARATION

Before commencing installation work, the following should be checked.

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

- The shingles 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. 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 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.

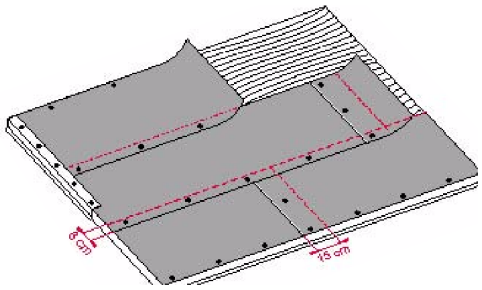


Figure 1 - Installing the underlay

GENERAL FIXING - SHINGLE

When preparing to install the shingle system, please take a moment to overlay two shingles as shown within Figure 2.

Note the creation of the hexagon pattern between the upper and lower shingle tabs, and how the alignment of this pattern sets outs the required head lap of 50mm.

On turning the strip over, you will note that half of the underside of the shingle has a release film, which once removed will expose self-adhesive bitumen.

Upon fixing, this exposed area will self-bond under the heat of the sun to the top surface of the shingle below. When installing at temperatures between 5°C and 10°C, installation will require the application of hot air to this exposed self-adhesive bitumen

Shingles should not be installed below 15° and must be nailed. On exposed sites, the shingles should not be laid below 30°. Where necessary, installers should check site exposure parameters against BS8104:1992 'Code of practice for assessing exposure of walls to wind-driven rain'.

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

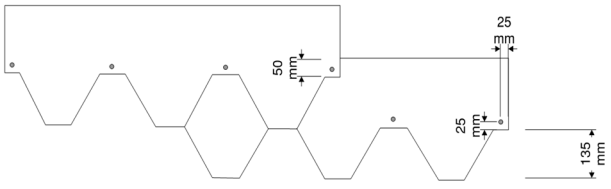
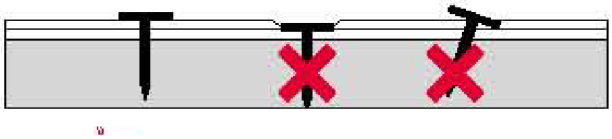


Figure 2 - Installing the shingle

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.



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

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', 2013.

POST COMPLETION

Building owners and occupiers should be aware of the measures required to ensure that the product functions as intended when installed as part of a complete pitched roof system. Common issues to roof spaces and roof voids in the course of a buildings life cycle often relate to condensation, and it is important that building users, owners and custodians ensure that all possible risks are minimised or eradicated by adopting good practice in building operation, follow on maintenance and future building service installations.

The following additional measures are not exhaustive, but must be considered as part of that approach to good practice:

- All penetrations into the roof space must be properly sealed, and loft hatches made convection tight by, for example, using a compressible draught seal.
- All water tanks in the loft space should be covered and all pipe work lagged.
- Services passing through and/or into the roof space from inside and outside must be correctly sealed.
- Appropriate measures must be taken to limit the rate of water vapour transfer into the loft space from the areas below. Appropriate ventilation rates and approaches to restrict the effects of high humidity areas such as mechanical extraction from bathrooms, etc. should be provided in accordance with UK Building Regulations and relevant British Standards.

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.