

HYDROZOL® BK (SV-BO)

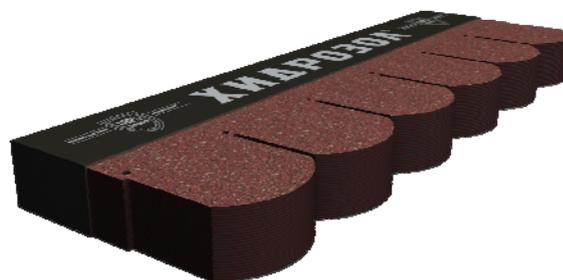
bitumen shingles from APP modified bitumen reinforced with fiberglass, resistant to extreme weather conditions, used for long-lasting protection of water leakage in roofs with slope between 12° and 90°



Scope of use

HYDROZOL® BK (SV-BO) are bitumen shingles made from fiberglass both sides impregnated with APP modified bitumen. The product is meant for long-lasting and secure protection from water leakage of different types of roofs and roofing constructions.

The fiberglass reinforcement provides the shingles with extra tensile strength, dimensional stability, tear and puncture resistance. The reinforcement keeps them from deformations as well. The colored mineral slate on the upper side of the shingles protects the bituminous layer from the UV rays and from mechanical loads, making it permanent and high resistance to low and high temperatures of the applied product. It gives the surface colorful and completed look. The shingles are available in green or red colour.



HYDROZOL® BK (SV-BO) are perfect for lightweight roofing constructions. They are suitable for renovation of roofs as well: they can be applied directly on old bitumen shingles without the necessity of additional costs for the removal of the old covering. The technology of application of the shingles guarantees extremely reliable water impermeable connection between the elements. In addition, it allows the realization of different ideas for application of coverings on domed roofs and complicated roofing constructions with slope between 12° and 90°.

The shingles are very light so they do not put additional loading to the roofing construction. The product is resistant to wind and it keeps its flexibility in both low and high temperatures without breaking. The shingles are easy for work since they are being applied fast without any problems. The shape of beaver-tail of the shingles facilitates the application in two layers. The product can be used for economic way of hydro insulation of partial walls.

HYRDOZOL® BK (SV-BO) are neutral in terms of thermal conductivity and thermal insulation of the buildings since they neither heat up additionally nor cool down fast. In this way the product limits the adverse effect of the outer temperature of the under-roofing area. Thus the conditions for formation of condensation are reduced.

If used properly, the product has minimum 10 years of service life.

Properties

effective finishing layer of hydro insulation	APP modification of the bitumen
suitable for domed roofs and complicated constructions with slope between 12° and 90°	resistant to deformations, tear, puncture and other mechanical loadings
high resistance to wind and extreme weather conditions	excellent elasticity and resistance in both low and high temperatures
excellent resistance to UV rays and aging	reduces the conditions for formation of condensation

Composition

Sheets on the basis of fiberglass saturated with APP modified bitumen content. They are covered with colored mineral slates (grey, green or red), on the upper side, on the lower side - by polyethylene film.

Packaging and Indicative consumption

Package:

Sheets 1,0x0,33 m (25 in a box)

Indicative consumption:

6,5 sheets per 1 m² surface

Colours of the slate:

green (SV-BO-Z); red (SV-BO-C)

Expiration date and Storage

Store indoors in its original package 24 months after the date of the production at temperatures over 5°C, with no direct sun light! Do not store close to solutions and acids since they could harm the product.

Store in a horizontal position!

Instructions for Use

Base Preparation

Install smooth, even, clean, dry wood deck on the roofing construction. It should be constructed by planks or hydrophobic wooden planes (OSB, water resistant plywood, chipboard for outdoors use and others). In order to construct the wood deck the planks should be dry, all of them with the same thickness and width from 2 cm to 15-20 cm. The wooden material should be dry enough in order to prevent the deformation of the planks while they are drying up (this process could disrupt the bitumen shingles).

The wood deck should well entrenched in order to prevent the movement that could damage the shingles.

The rake edge is covered by drip edge from zinc plated tin, stainless steel, PVC or other material.

Before the start of the application of bitumen shingles, it is obligatory to position and install the vents which guarantee the ventilation of the roof so they prevent the formation of condensation.

Underlayment

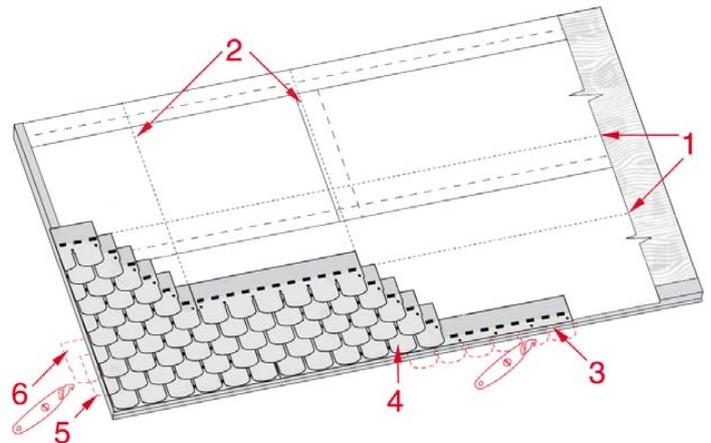
The use of underlayment is recommendable as it protects the under-roofing area from rain thus it is an additional protection. The underlayment reduces the problem with the unevenness in the wood deck which is resulting in visible imprints on the bitumen shingles ('Picture Framing').

The use of special underlayment is recommendable on roofs with slope less than 20°.

The underlayment is applied in lines which are parallel to the rake edge. The lines are nailed on the wood deck. The application should begin from the lowest part so every following line of underlayment is nailed with 10 cm overlap on the previous. Use stable nails.

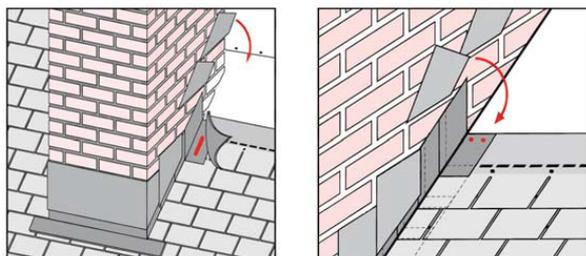
Application

The application of the bitumen shingles starts from the rake edge which is supposed to be covered by drip edge from zinc plated tin, PVC or other material. The formation of the first line is performed by cutting the beaver tail of the shingle. The straight part of the shingle is leveled with the first plank or with the eaves. As the second line of shingles is nailed and attached over the first one, it covers the initial line entirely. Thus the straight part of the form of the shingles is first layer of hydro insulation leaving the beaver tail as second.



The bitumen shingles should be applied in a staggered. In order to accomplish proper alignment the line of the shingles should be shortened by half beavertail on one side. The separate elements should overlap each other. The formation of diagonals assists fast draining of the roofs and it ameliorates the construction.

The lines are being nailed on equal intervals with nails of zinc plated tin or with galvanized nails with large head. The nailing is performed on the upper part of the area where the straight line and the beavertail of the shingle meet. Either when the slope of the roof is more than 60° or when there is strong wind on the certain area, 2 nails are required (instead of one).



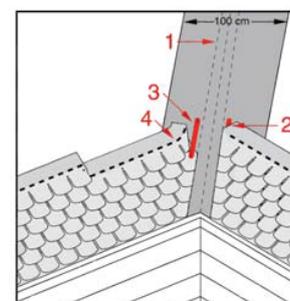
The adhesion of the separate elements between each other is obligatory. The bitumen shingles attach between each other because of warm temperature of the surrounding. In this way the wind cannot lift and blow up the beavertails. If the shingles have not attached entirely 24 hours after the application (because of cold weather or some other factor) they should be heated up by a gas torch so they adhere to the other elements. Under the

beavertails which are situated on the edges of the roof, apply TERAFLX® BITUMEN, bitumen sealant or HYDROZOL® BP, bitumen paste. When working in cold conditions bitumen sealant and bitumen paste could be used as well in order to make the adhesion of the shingles between each other more stable.

When starting the work on the chimney, angular segments are being formed by zinc plated tin or another proper material. They should be adhered to the chimney by bitumen paste or bitumen sealant. The segments are being nailed on the shingles on the upper side of their horizontal part. Line of shingles is adhered tightly over the horizontal part of the segment. The vertical part of the chimney is covered by tin liner which covers the angular segments. The connection wall – roof is formed in a similar way.

The ridge is formed by folding the overhanging part of the last line of shingles. This part is being nailed to the other side in order to protect the ridge. The same action is performed with the overhanging parts of shingles from the other side. The finishing ridge elements are formed when cutting the beavertail separately from the straight line. The beavertails are being nailed from both sides of the ridge.

The valleys (the areas where 2 roofing planes are connected and forming a gutter) are made by placing underlayment of bitumen membrane or some other type of hydro insulation tape (width - 100 cm) on the bottom of the valley. The membrane is being nailed to the roofing liner no more than 30 cm from the center of the valley. The shingles should be arranged in a crossed way (there is a visible effect reminding of a zipper). The shingles are overlapping 30 cm on the center of the valley. They are being applied to the underlayment by heating up by a torch as well as being nailed 30 cm away from the center of the valley.



Attention!

The application of hydro insulation bitumen membranes should be performed at dry weather and temperature of the surface and the environment over +5°C and air humidity under 80%.

The bitumen shingles are applied on roofing constructions with slope between 12° and 90° on wood deck!

The adhesion of the separate bitumen elements between each other is obligatory!

The arrangement of the shingles is staggered and in two layers – the beavertail is the upper hydro insulation layer and the straight line of the product is the lower layer!

All additional elements of the roof: the ridge ends, vents, eaves and others, are applied before the shingles!

Classification

Complies with the requirements of European and Bulgarian standards and measures up to:

European Standard	Testing protocols
EN 544	2069-CPD-0117/22.08.2008

Technical data

Testing protocols are issued by Notified Body (NB 2069) for compliance evaluation with Independent Construction Laboratory „Infrastructure” Ltd., Sofia.

Parameter	Measure	Testing method	Testing result
Reaction to fire	-	EN 13501-1	class E
Tensile strength - longitudinally - transversely	N/50 mm	EN 544:2011	≥ 600 ≥ 400
Nail shank tear resistance - longitudinal - transversal	N	EN 544:2011	≥ 100 ≥ 100
Flow resistance at elevated temperature	°C	EN 544:2011	≥ 90
Creep resistance at elevated temperature	mm	EN 544:2011	≤ 2

The information contained in the current document is based on our knowledge and recent technical achievements and experience that we have at the time of the last version. The technical recommendations concerning application that we offer in order to facilitate buyers and those working with our products are non-binding and are neither grounds for legal contract relations, or for additional obligations resulting from the purchase contract. They do not dispense buyers from the necessity to verify products' application according to the instructions for every specific use. We as manufacturers guarantee the quality of the product, but cannot influence the circumstances and methods of its use. Application of the product should be performed by qualified personnel.