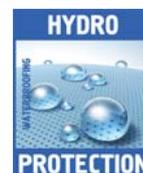


HYDROZOL® HBM (SBS-STP)

hydro insulation membrane from SBS modified bitumen covered with mineral slate and reinforced with fiberglass fabric, extremely strong and resistant to tear and puncture in wide operating temperature range: from -10°C to +85°C



Scope of use

HYDROZOL® HBM (SBS-STP) is highly flexible hydro insulation membrane which provides secure and long lasting protection from water penetration. The product is made up by elastomeric polymers (SBS) bitumen content, which is layered on both sides with fiberglass fabric. The SBS-Premium high modification of bitumen with elastomeric polymers provides excellent low-temperature flexibility. It also guarantees long-term durability and resistance to aging at extreme operating temperature range (from -10°C to +85°C) without being influenced by frequent and abrupt change in ambient temperature.



The fiberglass reinforcement significantly improves physical-mechanical properties of the membrane as it increase its strength and resistance to tear and puncture. Even when the membrane is cut or torn off the reinforcement keep the membrane intact and prevent its further damage. The glass veil provides dimensional stability of the bitumen at low and high temperature, as well as it guarantees the maintenance of the initial form even when subjected to extremely high loadings.

HYDROZOL® HBM (SBS-STP) is used as single-layer hydro insulation or as a finishing layer in a multilayered hydro insulation (over bituminous membrane without slate) of flat and inclined roofs. It is suitable for subterranean and dynamically loaded hydro insulations (canals, tunnels, parking areas, bridges and others). It is recommended for hydro insulation of constructions subject to cyclic movements, vibrations and considerable dimension change.

The membranes are covered with colored mineral slates (grey, green or red), and from the lower side – with polyethylene film. The mineral slates protect the membrane from mechanical and external atmospheric conditions, especially from aging caused by UV rays. The polyethylene film preserves the adhesive properties of the lower part of the roll.

Longitudinally, from one of the sides, the membrane has a 8 cm – strip without slate which is meant to be the overlapping area when applying. No adhesives are necessary since the application of the membrane is performed by torch heating.

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

Properties

excellent elasticity in both low and high temperatures (-10°C to +85°C)	high strength, resistance to tear and puncture and dimensional stability
for hydro insulation of constructions subject to broad movement, vibrations and dilatations.	excellent properties in a corrosive surrounding (acids, bases, salts, industrial gases and others)
SBS modification of the bitumen	high resistance to UV rays and aging
excellent elasticity in both low and high temperatures (-10°C to +85°C)	high strength, resistance to tear and puncture and dimensional stability

Composition

Rolls on the basis of fiberglass saturated with SBS modified bitumen compound. 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:

Roll 10 m² with weight 3,5 kg/m²
 Roll 10 m² with weight 4,0 kg/m²
 Roll 10 m² with weight 4,5 kg/m²

Indicative consumption:

1,09 m² per 1 m² surface

Colours of the slate:

Grey (SBS-STP-S); green (SBS-STP- Z); red (SBS-STP-C)

Expiration date and Storage

Store indoors 6 months after the date of the production in temperatures over 5°C, with no direct sun light! Do not store close to solutions and acids since they could harm the product.

The rolls must be stored upright on a smooth and even surface (best: on pallets). On the construction site store only the rolls needed for the day, place them vertically on smooth and even surface.

The rolls must not be left in a horizontal position!

When storing the pallets one over another, place wood overlay between them which guarantee equal distribution of the weight on the top of the first pallet.

Instructions for Use

Base Preparation

HYDROZOL® HBM (SBS-STP) is used onto all surfaces which are smooth, strong, dry, well cleaned from dust and grease, without freezing, damp and stains of salts.

All unevenness should be removed. It is recommendable to be filled in with HYDROZOL®BP BITUMEN PASTE. If there are sharp edges, they should be chopped off and rounded. Surfaces from freshly applied concrete or concrete slabs should be left to dry well for a period of 3 days to 8 weeks depending on the season.

In order to ameliorate the adhesion before application of the bituminous membranes, the surface should be primed with HYDROZOL® BG-OR SOLVENT BASED BITUMEN PRIMER or with HYDROZOL® BG-AQ WATER BASED BITUMEN PRIMER. Drying time of the primer varies between 8 and 24 hours depending on the porosity of the surface, the temperature and the moisture of the environment. The application of the membrane should be performed immediately after the primer dries up.

Preparation of the hydro insulation membrane

The application of the hydro insulation membrane should be planned in advance. Before application each roll should be unrolled and left in this position on an even surface for a few hours. If the weather is cold and it is raining, this action should be performed in warm premises, indoors. When the membranes are straightened, they should be rolled back.

If there are defects on the membranes (tear, puncture, fold, uneven surface and so on...), they should be removed by cutting.

Application

HYDROZOL® HBM (SBS-STP) is applied by overlapping (6-10 cm longitudinally and 15 – 20 cm transversely). Use torch heating on both the surface and the lower part of the membrane until the polyethylene film melts. Meanwhile unroll the roll of membrane slowly. Press if there is necessity of adjustment. Use roller to put pressure where two membranes are overlapping so they can stick to each other well.

If the application is performed as a second layer over a bituminous membrane without slate, the film of the first layer of the membrane should be melted as well. The hydro insulation membranes with slate from the upper layer are applied in a way that the area of overlapping of the first layer is covered entirely and to make sure not to overlap the joints of the upper and lower layer at one spot.

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 rolls should be stored in a vertical position in places where there is no direct sun light.

Before application, the membranes should be unrolled and left this way at least 3 hours with the temperature of the surrounding 20°C.

Do not step on freshly applied membrane.

In the process of working use suitable personal protection: bib and brace, apron, leather shoes, goggles, gloves!

Follow fire safety regulations and manuals for torch operation!

Membranes cannot be applied using adhesive!

Classification

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

European Standard	Testing protocols
EN 13 707 EN 13 969	753500909/2013

Technical data

Testing protocols are issued by Notified Body (NB 1023) for compliance evaluation with Institute for Testing and Certification Plc, Czech Republic.

Parameter	Measure	Testing method	Testing result
Reaction to fire	-	EN 13501-1	B _{Roof} (t ₂)
Tensile strength - longitudinally - transversely	N/50 mm	EN 12311-1	1100 ± 200 1400 ± 200
Elongation - longitudinal - transversal	%	EN 12311-1	(3-4) ± 2 (3-4) ± 2

Parameter	Measure	Testing method	Testing result
Resistance to impact (method A)	mm	EN 12691, Метод А	$h \geq 500$
Resistance to static loading	kg	EN 12730, Метод А	≥ 20
Nail shank tear resistance - longitudinal - transversal	N	EN 12310-1	100 ± 50 100 ± 50
Dimensional stability	%	EN 1107 - 1	$< 0,6$
Cold flexibility	°C	EN 1109	< -10
Flow resistance at elevated temperature	°C	EN 1110	$\geq +85$
Adhesion of granules	%	EN 12039	15 ± 15
Water vapour transmission properties	-	EN 1931	$\mu = 20000$
Properties after artificial aging		EN 1296	-
Properties after artificial aging caused by elevated temperature - Flow resistance at elevated temperature - Cold flexibility - Elongation longitudinal transversal - Tensile strength longitudinal transversal	°C °C % % N/50 mm N/50 mm	EN 1110 EN 1109 EN 12311-1 EN 12311-1	$\geq +85$ < -10 $(3-4) \pm 2$ $(3-4) \pm 2$ 1100 ± 200 1400 ± 200

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, nor 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.