

Neoroo® BM

Hybrid elastomeric waterproofing coating for roofs,
ideal for applications on top of bitumen membranes

Description

Hybrid (PU-acrylic) elastomeric waterproofing coating for roofs, ideal for applications on top of bitumen membranes with mineral slates. Prevents the migration of the asphalt and delays the ageing of the bitumen membrane. Also suitable for applications on cementitious substrates.

Fields of application

- Roofs, on top of existing mineral-surfaced bitumen membranes
- Exposed roofs made of concrete, cement tiles, cementitious screeds
- Metallic surfaces
- On top of new or old liquid waterproofing membranes

The above surfaces require appropriate preparation and priming prior to the application of Neoroo® BM.



Packing

13kg

Colour

RAL 9003

Properties - Advantages

- Delays the ageing of the bitumen membrane
- Prevents the migration of the asphalt
- Reflects the solar radiation and significantly reduces the surface temperature of the roofs with existing bitumen membranes
- Long-term resistance to UV radiation
- Increased resistance to ponding water
- Fast drying
- Eco-friendly & user-friendly (water-based, one-component)

Technical characteristics

Density (EN ISO 2811-1)	1,35kg/L (±0,05)
Elongation at break (ASTM D412)	300% (±20)
Tensile strength at max. load (ASTM D412)	3,2MPa (±0,3)

Tensile strength at break (reinforced with Neotextile®, ASTM D412)	>7MPa
Hardness Shore A (ASTM D2240)	60
Accelerated UV ageing in the presence of moisture (UVB-313, 4h UV @60°C + 4h condensation @50°C, ASTM G154)	Pass (>1000 hours)
Service temperature	-5°C min. / +80°C max.
Consumption: • 1,3-1,5kg/m² for two layers (bitumen membrane with mineral slates) • 0,9-1,1kg/m² for two layers (cementitious surface)	

Application conditions

Substrate moisture content	<6%
Relative air humidity (RH)	<80%
Application temperature (ambient - substrate)	+8°C min. / +40°C max.

Curing details

Drying time (+25°C, RH 50%)	2-3 hours (initially)
Dry to recoat (+25°C, RH 50%)	12 hours
Full hardening	~ 7 days
<i>* Low temperatures and high humidity during application and/or curing prolong the above times, while high temperatures reduce them</i>	

Appropriate primers on usual substrates

Substrate	Primer	Description - Details
Bitumen membrane with mineral slates **	Revinex® (diluted with water 1:4)	Water-based primer, ideal for the stabilization of bitumen membrane with slates and as a bonding agent
Concrete, cement screed	Revinex® (diluted with water 1:4)	Water-based primer of high adhesion on cementitious substrates
	Silatex® Primer	Acrylic solvent-based primer, with high penetrating ability
	Vinyfix® Primer	Solvent-based primer based on vinyl resins, ideal for stabilizing brittle substrates
Metal	Neotex® Metal Primer	Water-based, one-component anti-corrosive primer, with excellent adhesion on old or new metal surfaces
Inox, galvanized steel, aluminium	Neotex® Inox Primer	One-component water-based primer, with high adhesion strength on glossy non-porous substrates
** For bitumen membranes where the mineral slates are fully attached and in good condition all over the surface, Neorooft® BM can be applied directly, without prior priming		



Instructions for use

Substrate preparation

Bitumen membrane with mineral slates

The surface must be stable, clean, dry and free of pollutants, dust, soil and loose materials, while it should also have the appropriate slopes. Any slates that are detached or have insufficient adhesion to the bitumen membrane should be removed by water jetting. After the water jetting, the substrate must be left to dry completely. The mineral bitumen membranes must be inspected thoroughly for any detachments. Membranes with insufficient adhesion should be re-attached, if possible, or completely cut off and replaced with new ones in the appropriate dimensions.

Cementitious surface

The surface must be stable, clean, dry, protected from rising moisture and free of dust, oil, grease and loose materials. Any poorly adhering materials and older coatings should be removed, and the surface should be thoroughly cleaned mechanically or chemically. Depending on the substrate, appropriate mechanical preparation may be required, to smooth the irregularities, open the pores and create the optimum conditions for adhesion. The surfaces should have the appropriate slopes and they should be sufficiently flat, smooth, and continuous (i.e., without holes, cracks, bays, etc.). In the opposite case, they should be treated accordingly (e.g. by proper puttying).

Priming

Prior to the application of **Neorooft[®] BM**, the proper **NEOTEX[®]** primer should be applied, depending on the substrate. In case of application on top of mineral-surfaced bitumen membrane, it is recommended to apply of **Revinex[®]**, diluted with water in a ratio **Revinex[®]** : water - 1:4-5, in one or two layers.

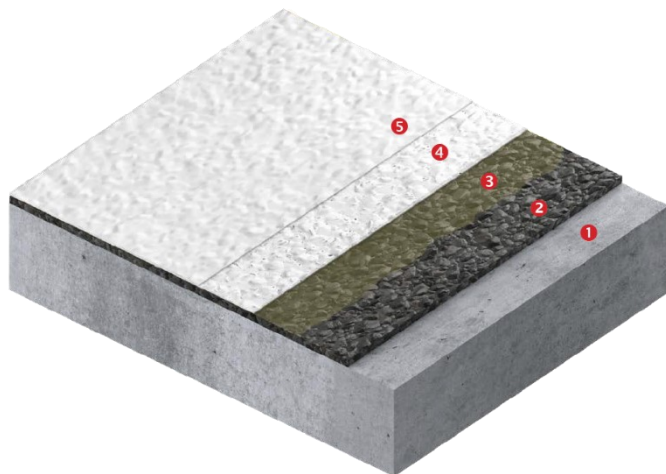
In the case of cementitious substrates, it is proposed to apply **Revinex[®]** diluted with water in a ratio **Revinex[®]**: water - 1:4 or the solvent-based primers **Silatex[®] Primer** or **Vinyfix[®] Primer**.

Application

Following the priming of the surface, **Neorooft[®] BM** is applied, after thorough stirring, in at least two layers by roller, brush or airless spray. The first layer is diluted 5% with clean water, while the second layer (and every subsequent one) follows after app. 12 hours, applied undiluted. Every layer of **Neorooft[®] BM** should be applied in a vertical or different direction than the previous one.

Along the joints of the bitumen membrane (depending on their condition), along the upstands-floor intersections (as well as in all the other corners), in construction details (such as around and inside roof drains), as well as when covering cracks, it is advisable that **Neorooft[®] BM** is locally applied in advance, reinforced with the specially designed non-woven polyester fabric **Neotextile[®]** of 50gr/m² weight ("wet-on-wet" application of two layers with the fabric positioned in between).

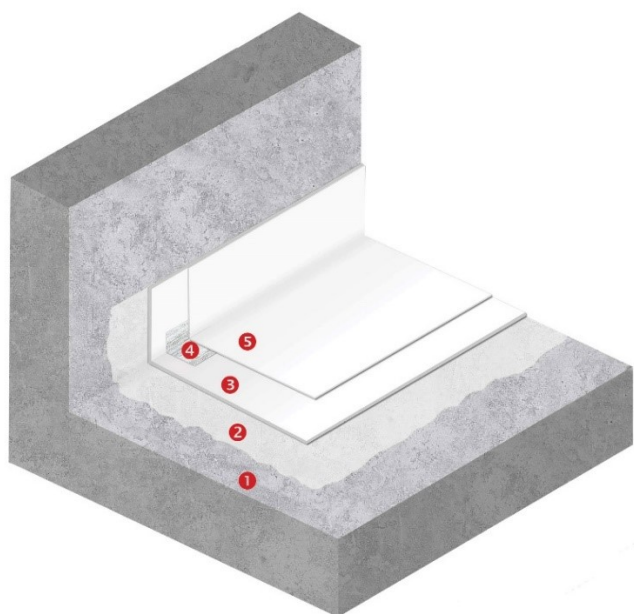
Indicative systems build-up



ROOF WATERPROOFING ON TOP OF BITUMEN MEMBRANE WITH MINERAL SLATES

- 1 Cementitious substrate
- 2 Bitumen membrane with mineral slates
- 3 *Primer: Revinex®* diluted with water (mixing ratio 1:4-5)
- 4 *Waterproofing base coat: Neoroof® BM* (diluted 5% with water)
- 5 *Waterproofing topcoat Neoroof® BM* (without dilution)

Consumption of **Neoroof® BM**: 1,2-1,5kg/m²
(for two layers)



EXPOSED ROOF WATERPROOFING ON CEMENTITIOUS SUBSTRATE

- 1 Cementitious substrate
- 2 *Primer: Revinex®* diluted with water (mixing ratio 1:4)
- 3 *Waterproofing base coat: Neoroof® BM* (diluted 5% with water)
- 4 *Corner reinforcement: Neotextile® Tape*
- 5 *Waterproofing topcoat: Neoroof® BM* (without dilution)

Consumption of **Neoroof® BM**: 0,9-1,1kg/m²
(for two layers)



Special notes

- **Neorooft[®] BM** should not be applied under wet conditions, or if wet conditions or rainy weather are expected to prevail during the application or the curing period of the product
- Substrate temperature during application and curing must be at least 3°C above dew point to avoid condensation issues
- The application is continued sufficiently in the vertical surfaces of the roof (min. 30cm), in order to form a uniform waterproofing membrane. It is recommended in any case to cover the upstands entirely and to continue the waterproofing application in their horizontal sections.
- The durability of the waterproofing system is enhanced by the increase of the total dry film thickness, which may be achieved through the application of an additional layer or layers. Additionally, the increase in the dry film thickness further reduces the likelihood of yellowing of the final surface, which may come as a result of asphalt migration.
- In case of application on top of a bitumen membrane, it is recommended that the membrane has aged sufficiently, in order to reduce the possibility of volatile content and plasticizers to “bleed through” from the bitumen substrate. The immediate application on top of a new bitumen membrane is not recommended.
- In areas with an increased likelihood of stagnant water remaining for an extended period of time, **Neorooft[®] BM** is recommended to be reinforced with the polyester fabric **Neotextile[®]**. In such case at least 3 coats of **Neorooft[®] BM** are required locally. In any case though, it is deemed necessary that appropriate slopes are created in advance to facilitate the smooth flow of water away from the roof.
- In cases of projects with higher demand in terms of mechanical resistance and crack bridging, it is recommended that **Neorooft[®] BM** is thoroughly reinforced with the non-woven polyester fabric **Neotextile[®]** in the whole application surface.
- Due to the bitumen membranes’ lack of water vapour permeability, and for the release of any trapped water vapour of the substrate, it is recommended to apply air vents in the whole roof’s surface per 20-25m²

Maintenance instructions

- The total hardening of the film occurs app. 7 days after the application of the final layer, depending also on the atmospheric conditions. During this period, it is advisable that the access to the application area is prohibited or limited only to specialized personnel.
- It is recommended to annually inspect the coating for any damage caused by accidental impact or misuse
- In case of need for local repairs, **Neorooft[®] BM** is re-applied in its original dry film thickness at the minimum, after cleaning and priming (if necessary) the affected area. Where appropriate, it is recommended that the non-woven polyester fabric **Neotextile[®]** is used as a reinforcement.
- Periodic cleaning by water-jetting is advisable (combined with a neutral washing agent, if needed), especially in case of heavy accumulation of dirt, dust and pollutants on the surface



Appearance	Viscous liquid
Colours	White RAL 9003 Available in other shades upon request
Packing	13kg in plastic pails
Cleaning of tools – Stains removal	By water immediately after application. In case of hardened stains, by mechanical means
Volatile organic compounds (V.O.C.)	V.O.C. limit acc. to the E.U. Directive 2004/42/CE for this product of category AcWB: 40g/l (Limit 1.1.2010) - V.O.C. content of the ready-to-use product <40g/l
UFI code	6Q90-F088-H002-KNMD
Versions	Neorooftm , with high cool roofing properties Neorooftm Nordic , in terracotta shade
Storage stability	2 years, stored in its original sealed packing, protected from frost, humidity and exposure to sunlight

The information supplied in this datasheet, concerning the uses and the applications of the product, is based on the experience and knowledge of NEOTEX® SA. It is offered as a service to designers and contractors to help them find potential solutions. However, as a supplier, NEOTEX® SA does not control the actual use of the product and therefore cannot be held responsible for the results of its use. As a result of continual technical evolution, it is up to our clients to check with our technical department that this present data sheet has not been modified by a more recent edition.

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