



WATERPROOFING SYSTEMS

GECOSELF HP VAPOUR BARRIER

Waterproofing composite self-adhesive membrane for use as a vapour barrier



DESCRIPTION

GECOSELF HP V.B. are pre-fabricated waterproofing membrane for specific use as a total barrier to the passage of vapour. GECOSELF HP V.B. has a continuous single strand composite woven non woven polyester reinforcement with high mechanical characteristics and an aluminium film which allows to obtain a barrier to the transmission of vapour. The lower face of GECOSELF HP V.B. is protected with a removable silicon release film. The upper face is self protected with micro mineral slates that offer good walkability and improve grip of TECA adhesives (Polyurethane Glue, Pratiko Mastic, Bit Adhesive, etc.) for the adhesion of insulating panels; furthermore a removable side selvedge of 10 cm is foreseen. In the stratigraphy of the roof, GECOSELF HP V.B. must be applied under the insulating panel, in order to preserve the latter from the condensation phenomena of water vapor, which certainly occurs, as the roof operating conditions change. GECOSELF HP V.B. is an innovative self-adhesive with increased adhesiveness, enhanced resistance of the adhesion to aging and the cold (the product maintain good adhesion even at low temperatures). The GECOSELF HP V.B. membranes are capable of resolving specific application and functional requirements and present numerous and important advantages, such as ease of application with consequential savings on time and the possibility to apply the material on surfaces which are not suitable to open flame. Therefore GECOSELF HP V.B. is insuperable in the waterproofing of wood structures, insulation panels which are heat sensitive, panel decks and refurbishment of historical roofs. GECOSELF HP V.B. guarantees a perfect level of adhesion to the application surface, providing the system with an excellent level of wind uplift resistance and allowing accidental infiltrations to be traced.

APPLICATION OF THE INSULATION

When choosing the method of fixing the insulation of the roof system, applied on top of the vapour barrier, the following factors must be considered:

- type of insulation (characteristics of stability, compression, etc.),
- compatibility between the fixing, the insulation and the waterproofing membrane,
- the type of adhesive,
- the factor of possible wind uplift,
- the type of substrate.

Where application of the panels with mechanical fixing is required, these must be applied side by side making sure that they are also staggered and properly fixed to the GECOSELF HP V.B. with suitable fixings to the type of substrate and of the correct length based on the thickness, these should be at least 10 cm from the edges and along the diagonals. The total resistance of the fixing elements of the panel, to wind uplift (Wh), should in any case be superior to ≥400 N per fixing. For the application of the insulation it is suggested to follow the indications of the manufacturer and eventual indications in the specification. For further information and indications it is recommended to consult GECO's technical literature.

Technical Characteristics	Measure units	Reference norm	PA	Tolerance
Type of compound			SBS	
Type of reinforcement			Polyester + Aluminium film	
Upper face finish			Micro mineral*	
Lower face finish			Silicon release film	
Length	m	EN 1848-1	15 ±1%	
Width	m	EN 1848-1	1 ±1%	
Mass	kg/m ²	EN 1849-1	2,5	±10%
Cold flexibility	°C	EN 1109	-25	
Flow resistance	°C	EN 1110	100	
Tensile strength L/T	N/5 cm	EN 12311-1	700/500	-20%
Elongation at break L/T	%	EN 12311-1	35/35	-15
Nail tear strength L/T	N	EN 12310-1	150/150	-30%
Dimensional stability	%	EN 1107-1	-0,3	
Static puncture resistance	kg	EN 12730-A	15	
Dynamic puncture resistance	mm	EN 12691-B	900	
Fire resistance		EN 13501-5	F ROOF	
Fire reaction		EN 13501-1	F	
Watertightness	kPa	EN 1928	60	
Vapour transmission	μ	EN 1931	1500000	
Peel resistance on steel support	N/50 mm	UEAtc 4.3.3 - ASTM D 1000	50	-20N
Peel resistance on steel support after ageing	N/50 mm	UEAtc 4.3.3 - ASTM D 1000	100	-20N
Peel resistance at 180° on removable selvedge	N	EN 12316-1	40	-20N
Peel resistance at 180° on removable selvedge after ageing	N	EN 1296	130	-20N

* Mineral self-protected products may undergo color tone variations due to the time and length of storage. Exposure to atmospheric conditions, after application, will tend to uniform the color after a few months. The change in color tone cannot therefore be contested and / or complained of as it is a natural phenomenon that the slate manufacturer himself cannot guarantee.

TECHNICAL DATA SHEET




APPLICATION & RECOMMENDATIONS

- On cementitious surfaces and similar apply, by roller or airless, synthetic primer PRIMER SINT, approx. consumption 200-400 g/m². This application is not required on wooden roofs except OSB boards.
- Position the GECOSELF HP V.B. on the application surface; provide side & head laps respectively of 10 & 15 cm's between the sheets.
- Remove the release film from the lower face, this is divided longitudinally in two sections, in one or two steps. It is always suggested to mechanically fix head & side laps.
- Use suitable roller by applying pressure over all of the membrane surface, particularly the side & head laps to further promote adhesion.
- Position the thermal element as described in technical specifications (adhesives or mechanical fixing, etc.).
- The GECOSELF HP V.B. membranes are to be applied on dry clean surfaces which must be treated with a synthetic primer, excluded are wooden roofs except OSB boards.
- Self-adhesive membranes must not be applied on sanded or talced underlays. The granulometry of these upper surfaces creates a detaching effect that prevents the self-adhering properties from achieving a fully bonded installation.
- The side & head laps must be respectively of 10 & 15 cm's.
- When applying on verticals, the apex of the membrane must be mechanically fixed with a proper flashing; where possible it is advisable to go up and over the vertical and on to the horizontal surface.
- Avoid storing the product on the roof with temperatures lower than +10°C or higher than +40°C if not for the time necessary for installation.
- With temperatures below +10° C it is necessary to apply the product using particular precautions:
 1. Store the rolls in an upright position in the original packaging, indoors and in dry and warm areas.
 2. Transport the rolls to the place of application only at the time of use.
 3. The ideal application occurs at temperatures above +10°C, however it is possible to apply the product below +5°C bringing the rolls to the ideal temperature with a leister or gas torch.
- **The application surface must not have any depressions to avoid the risk of ponding water, the slope must be at least 1.5% on concrete decks and 3% for steel or wooden ones, this to guarantee a proper run off of rainwater.**
- Program periodical roof inspections to remove debris, mud, plants, etc. and to keep under control the waterproofing as well as accessory details (drain outlets, TV antennas, air conditioning, etc.).
- In the eventuality in which the element to be waterproofed presents residual humidity (ex. refurbishment, application after heavy rains) it is necessary to foresee the use of air vents, which will be positioned in a way to allow for the evacuation of the humidity.
- Absolutely avoid the stacking of rolls and pallets for storage or transport to avoid possible deformations which may compromise a perfect installation. It is recommended to store the product at temperatures above 0°C.
- For information concerning storage and application of Geco membranes, please refer to the "Installation manual".

FIELDS OF USE

EN13707 CONTINUOUS ROOFS 0958-CPR-2045/1

CERTIFICATION 	N. LAYERS			METHOD OF APPLICATION						TYPE OF APPLICATION			TYPE			
	SINGLE LAYER	DOUBLE LAYER	MULTILAYER	TORCH	HOT AIR	MIXED (TORCH/AIR)	COLD BOND GLUE	MECHANICAL FIXING	THERMOADHESIVE / SELF-ADHESIVE	FULLY BONDED	PARTIALLY BONDED	LOOSE LAID	COMPLEMENTARY LAYER	TOP LAYER	HEAVY PROTECTION	ANTI-ROOT
GECOSELF HP V.B. PA 2,5 KG/MQ		X	X						X	X			X			

EN13970 VAPOUR BARRIER

GECOSELF HP V.B. PA 2,5 KG/MQ	X	X	X						X	X			X			
--	---	---	---	--	--	--	--	--	---	---	--	--	---	--	--	--