



WATERPROOFING SYSTEMS

GECOSELF HP

Waterproofing composite self-adhesive membrane



DESCRIPTION

The bitumen-polymer GECOSELF HP membranes are the arrival point of the latest generation of membranes denominated "composite". These membranes are thus defined because thanks to a production technology, Geco can produce materials with differentiated waterproofing mass, which allows the optimal use of each layers properties, satisfying the different requirements. GECOSELF HP has a continuous single strand composite woven non woven polyester reinforcement with high mechanical characteristics.

Main advantages

- The PA version upper face is self protected with mineral slates which reduce the absorption of heat on the membrane surface; **this version is equipped with a special 10 cm side selvedge that increases membrane adhesion and facilitates application.**
- **FASTER APPLICATION, AS IT IS NO LONGER REQUIRED TO REMOVE THE SELVEDGE.**
- **IN THIS PRODUCT, THE LOWER FACE ADHESIVE COMPOUND ABSOLUTELY ADHERES TO THE SPECIAL SELVEDGE.**
- **After applying the product directly on the substrate and removing the lower face silicon release film, it is possible to mechanically fasten it directly to the selvedge.**
- The P version upper face is self protected with a **special film with a particular geometric serigraphy**, specially designed to facilitate the application. The P 2 mm version can have a polypropylene mat finish.

GECOSELF HP 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).

FIELDS OF USE

The GECOSELF HP 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 is insuperable in the waterproofing of wood structures, insulation panels which are heat sensitive, panel decks and refurbishment of historical roofs. Furthermore GECOSELF HP can be used and allows the waterproofing of particular roof details (ex. bandaging of plastic tubes, etc.) and the possibility to also apply with the traditional application method of open flame or hot air, obtaining an exceptional level of adhesion. GECOSELF HP 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.

| Technical Characteristics | Measure units | Reference norm | P | | PA | | | Tolerance | |
|--|-------------------|----------------------------|----------------------|----------------------|----------|------|-----|-----------|------|
| Type of compound | | | APP | | | | | | |
| Type of reinforcement | | | Polyester | | | | | | |
| Upper face finish | | | Polypropylene mat | Special printed film | Mineral* | | | | |
| Lower face finish | | | Silicon release film | | | | | | |
| Length | m | EN 1848-1 | 15 ±1% | 10 ±1% | | | | | |
| Width | m | EN 1848-1 | 1 ±1% | | | | | | |
| Thickness | mm | EN 1849-1 | 2 | 3 | 4 | | | | ±5% |
| Mass | kg/m ² | EN 1849-1 | | | | 3, 5 | 4,0 | 4,5 | ±10% |
| Cold flexibility | °C | EN 1109 | -20 | | | | | | |
| Flow resistance | °C | EN 1110 | 100 | | | | | | |
| Tensile strength L/T | N/5 cm | EN 12311-1 | 400/300 | 500/400 | 400/300 | | | -20% | |
| Elongation at break L/T | % | EN 12311-1 | 35/35 | | | | | | -15 |
| Nail tear strength L/T | N | EN 12310-1 | 120/120 | 140/140 | 120/120 | | | -30% | |
| Dimensional stability | % | EN 1107-1 | -0,3 | | | | | | |
| Fire resistance | | EN 13501-5 | F ROOF | | | | | | |
| Fire reaction | | EN 13501-1 | F | | | | | | |
| Watertightness | kPa | EN 1928 | 60 | | | | | | |
| 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 new polymeric selvedge | N | EN 12316-1 | 50 | | | | | | -20N |
| Peel resistance at 180° on new polymeric selvedge after ageing | N | EN 1296 | 150 | | | | | | -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 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 suitable single or double battens for subsequent laying of the sealing element consisting of a discontinuous covering mantle (tiles, roof tiles, etc.) as required by the UNI 9460: 2008 standard - Discontinuous roofing for roofs.
- In the event of high internal relative humidity, or the presence of humidity in the wooden deck application surface, to prevent the formation of condensation on the inner face of the adhesive membrane during the night, which may cause marks or stains over time in the ceiling of the rooms below, foresee the use of GECO BASE vapor separation and diffusion layer having a polypropylene film finish mechanically fixed to the support with broad-headed nails. The adhesive membrane is then applied over the vapor diffusion layer.
- The GECOSELF HP 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 or slope > 15%, 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.
- Using the version with special printed film, immediately apply the finishing layer.
- 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 P 2 MM | | X | X | | | | | | X | X | | | X | | | | |
| GECOSELF HP P 3 MM | | X | X | | | | | | X | X | | | X | | | | |
| GECOSELF HP P 4 MM | | X | X | | | | | | X | X | | | X | | | | |
| GECOSELF HP PA 3,5 KG/MQ | | X | X | | | | | | X | X | | | X | | | | |
| GECOSELF HP PA 4,0 KG/MQ | | X | X | | | | | | X | X | | | X | | | | |
| GECOSELF HP PA 4,5 KG/MQ | | X | X | | | | | | X | X | | | X | | | | |

EN13859-1 UNDER ROOF TILE

| | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|--|--|--|--|--|---|---|--|--|--|---|--|--|
| GECOSELF HP PA 3,5 KG/MQ | X | X | X | | | | | | X | X | | | | X | | |
| GECOSELF HP PA 4,0 KG/MQ | X | X | X | | | | | | X | X | | | | X | | |
| GECOSELF HP PA 4,5 KG/MQ | X | X | X | | | | | | X | X | | | | X | | |