

PermaSEAL^{PRO}

25P Green Roof

Drainage & Storage Membrane



PERMASEAL^{PRO} 25P GREEN ROOF

PRODUCT TECHNICAL DETAILS

Membrane	HDPE approx. 900g/m ²
Composition	Recycled HDPE
Geotextile	PP approx 100g/m ²
Stud height	Approx 25mm
Total weight	Approx 1000g/m ²
Number of studs	400/m ²
Compressive strength	Approx 150kN/m ²
Colour	Black
Water drainage capacity	Approx 9.8 l/s m
Water storage capacity	Approx 11 l/m ²
Small roll version width	1m plus 10cm geotextile overlap
Standard roll width	1m or 2m plus 10cm geotextile overlap
Small roll version length	2m
Standard roll length	10m
Air volume between studs	Approx 14 l/m
Temperature resistance	-30°C to +80°C
Chemical properties	Chemical resistant
Physical properties	Safe for drinking water
Characteristic opening width	Approx 170 µm
Water permeability EN ISO 11058	Approx. 100 · 10 ⁻³ m/s
Fire resistance	Class E

PermaSEAL[®] PRO 25P Green Roof is a high-quality HDPE drainage and water storage membrane suitable for use in extensive and intensive green roof applications and other walkable surfaces.

For the roll out versions, the membrane incorporates a bonded high quality geotextile filter layer to provide a 25mm cavity that is protected against soil obstruction and can store a large amount of water. The smaller board version is supplied without a bonded geotextile. The HDPE membrane is perforated to allow water to pass through to the drainage space below, preventing saturation of the sedum or grass above.

PermaSEAL[®] PRO 25P is guaranteed against deterioration for 30 years and has a life expectancy equal to the design life of the structure (DIN 9001:2000). PermaSEAL[®] PRO 25P Green Roof is an inert product and is highly resistant to water, alkalis, saline solutions and organic acids and is not affected by minerals. It is also resistant to bacteria, fungi, and other small organisms.

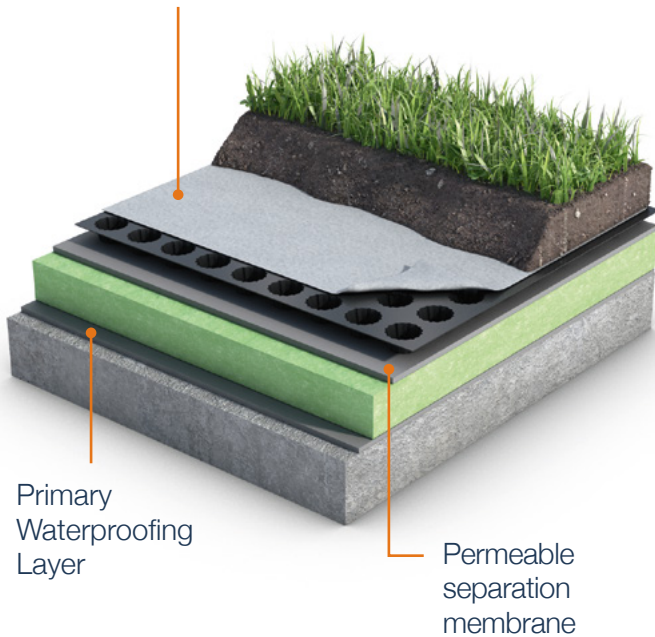
PermaSEAL[®] PRO 25P Green Roof is used as a water storage and drainage layer in conjunction with a primary waterproof coating above decks, flat roofs and pitched roofs. As the membrane is perforated it is also suitable for inverted warm roof application.

Available in various sizes, the 1m x 2m board version is the ideal solution for smaller DIY projects with its manageable size and weight. Whether it's a bin store, bike shed or even a garden home office, the boards can be cut and placed easily.

FEATURES

- **Fully bonded, high quality** geotextile prevents slip and compression into storage cups on the roll version
- **Geotextile filter layer** prevents siltation of the studs on the roll version
- **High drainage** capacity
- **Tough and durable** membrane
- **Easy to install** – simply unroll or place depending on version
- **Large water storage capacity** of approx 11 litres /m²
- **High compressive strength** - 150kN /m²
- Bonded geotextile filter layer on the roll version **saves time on installation** compared with loose laid geotextile

PermaSEAL® PRO 25P Green Roof Membrane



INSTALLATION

The application surface should have a gradient of at least 2%. Once the horizontal waterproofing, PermaSEAL® PRO Root Barrier and PermaSEAL® PRO Protection Fleece (if required) is in place, roll out or place the PermaSEAL PRO 25P Green Roof membrane with the geotextile facing upwards.

Ensure that every roll of membrane overlaps the next roll by approximately 100mm, this joint can be sealed with PM Power fix or PermaSEAL® Jointing Tape, taking care to lift the geotextile, overlapping onto the next section of membrane. With any vertical edges of the surface, the drainage membrane should be raised at least 150mm or to the upper edge of the finished substrate layer.

Once installed, the membrane is immediately ready to receive the Intensive or extensive green roof substrate.

The 1m x 2m board version simply butt joints at the edges, with no need for overlaps. Overlapping can be achieved if necessary.

Once installed, and depending on the finish, the PermaSEAL Pro Green Roof Filter Layer 120 can be applied over the surface ready to receive the planting substrate.

FINISHING

PermaSEAL® PRO 25P Green Roof is designed to receive a number of build ups including intensive and extensive green roof landscaping designs. However, if the geotextile is removed it can also accept walkable and driveable finishes (the studs must be filled).

INTENSIVE GREEN ROOF

- Roofs with large vegetation e.g. bushes, trees
- Thick substrate layer, 15 - 60 cm thick.
- High weight up to 500 Kg/m²
- Must be maintained like gardens
- Additional water necessary

DRIVABLE ROOF

- A sub base course and a bedding course will be installed between PermaSEAL® PRO 25P Green Roof and the drivable pavement

EXTENSIVE GREEN ROOF

- Roofs with low vegetation like sedum, moss, flowers
- Thin substrate layer, 8 - 10 cm high
- Small weight up to 100 Kg/m²
- Nearly no maintenance
- No additional water necessary

WALKABLE ROOF (WITH PAVEMENT OR FLAGSTONES)

- A bedding course of sand, gravel or chippings will be installed between PermaSEAL® PRO 25P Green Roof and the pavement

All Permagard products are of a high quality and subject to rigid quality control. The company, however, cannot govern the conditions of the usage and application of its products and any warranty, written or implied covers material only. The information contained in this leaflet is given in good faith but no liability can be assumed by the Company for any damage, loss, injury or patent infringement arising from its use.

Permagard Products Ltd
Units B2-B5, Worthy Road
Chittening Industrial Estate
Avonmouth
Bristol, BS11 0YB

FURTHER INFORMATION

PermaSEAL® PRO 25P Green Roof is suitable for various types of installation and it is imperative that the membrane is specified in the correct detail as part of a wider waterproofing and drainage system.

This product is not designed to be a waterproofing membrane, it is designed to be the drainage and storage layer over the primary waterproofing. Please contact our technical department if at all unsure as to its suitability.

STORAGE

Store upright in dry conditions at temperatures between 5°C and 25°C. Do not expose to freezing conditions or direct sunlight. Protect from UV.

HEALTH & SAFETY

Please use the product only in accordance with the information given in this datasheet and the installation guide. There is no legal requirement for a Safety Data Sheet for this product.

ACCREDITATIONS

PermaSEAL® PRO 25P Green Roof Drainage and Storage membrane is tested and CE marked to the relevant standard.

All Permagard products are of a high quality and subject to rigid quality control. The company, however, cannot govern the conditions of the usage and application of its products and any warranty, written or implied covers material only. The information contained in this leaflet is given in good faith but no liability can be assumed by the Company for any damage, loss, injury or patent infringement arising from its use.

Permagard Products Ltd
Units B2-B5, Worthy Road
Chittening Industrial Estate
Avonmouth
Bristol, BS11 0YB