



CREATING EFFECTIVE DRAINAGE FOR GREEN AND TURF ROOFS



Using the Oldroyd Xv green range for protection and drainage solutions in turf and green roofs





The Oldroyd 'Green' range is the only membrane system designed specifically for Green and Turf Roof applications.

Oldroyd membranes are manufactured in Norway where the benefits of Green Roofs have been recognised for thousands of years.

The environmental benefits of turf and green roofs are widely recognised, while roof gardens and roof terraces provide much-needed outdoor space in urban areas. Oldroyd Green Roof membranes ensure effective drainage and help to maintain perfect growing conditions.

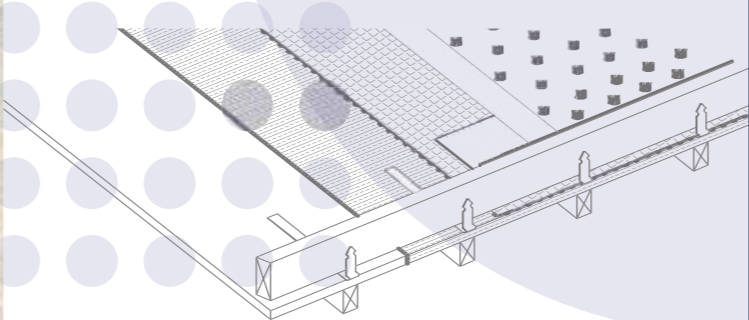
Due to the high degree of insulation that they provide, green roofs are known for their ability to provide an extremely constant temperature throughout the year. During the winter they keep the heat in, and in the summer they provide a relatively cool environment. Green roofs also have the ability to soften harsh edges of buildings in sensitive environments, making them blend in with the surrounding area.

Turf and green roofs provide a habitat for insects and other wildlife. Where new buildings are built on existing sites, the roof covering can be designed to replace a habitat that would otherwise have been lost.

GREEN ROOF DESIGN CONSIDERATIONS

The most important considerations when designing turf and green roofs are ensuring that the roof is strong enough to support the weight of the turf or plants (even when they are fully saturated by rainfall and covered in several feet of snow!) and ensuring that the roof is watertight.

Structural calculations will need to be made, and the foundations and roofing timbers may require upgrading in order to support the additional weight of a turf or green roof.



A TYPICAL TURF ROOF INSTALLATION



TYPES OF GREEN ROOF



Traditional Turf Roof

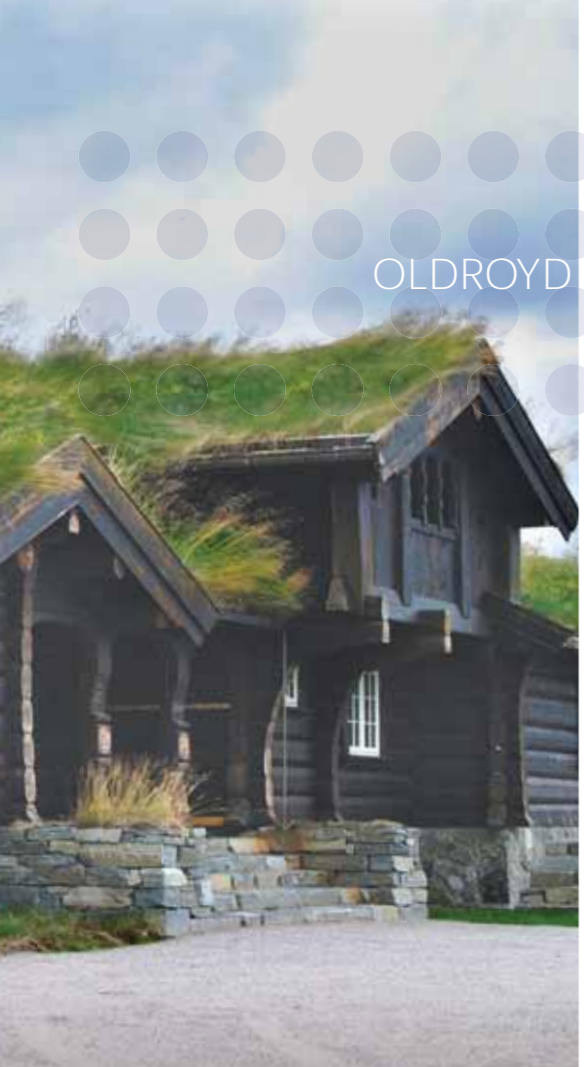


Contemporary Green Roof

Methods of construction differ between pitched green roofs and flat green roofs. Flat green roofs can be either extensive (have a thin layer of growing material such as sedum matting) or intensive (greater soil depth with shrubs and even trees). The weight requirements for intensive green roofs are such that they are normally installed over concrete roof decks.

A further type of green roof is known as a biodiverse or brown roof. These are constructed in a similar way to flat green roofs, but are designed with specific biodiversity objectives in mind - e.g. maximising biodiversity or providing a habitat for a specific species.

OLDROYD Xvgreen



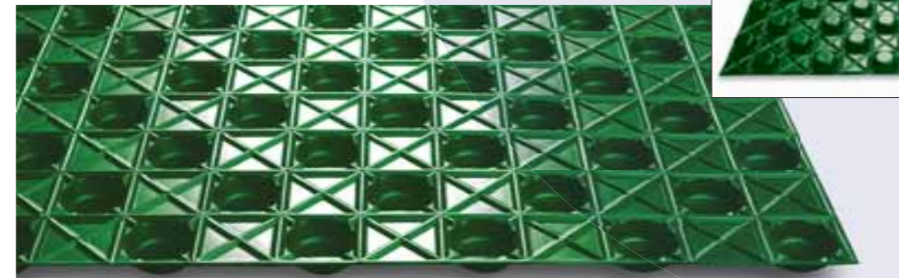
Oldroyd Xv green is the drainage membrane of choice for pitched turf and green roof applications.

Oldroyd Xv green is specifically designed for use in turf roof construction. When working on the roof, the unique 'X pattern' helps to provide a superior grip. The rubberised outer layer on both sides minimises slipping of the membrane on the roof during laying, providing further grip when laying the turf or sedum. It is also a much safer surface in wet or dusty situations.

Manufactured from high-grade polypropylene with a TPO* outer layer on both sides and a recycled inner core, Oldroyd Xv green is incredibly strong. In fact it is three times stronger than normal single layer membranes and the studs won't break or flatten whilst working on it. Oldroyd Xv green is available in a range of sizes ensuring rapid progress during construction.

The Multi-Layer Technology used in Oldroyd Xv allows recycled material to be used within the central layer and virgin material in the outer layers, improving the integrity of the product and benefiting the environment.

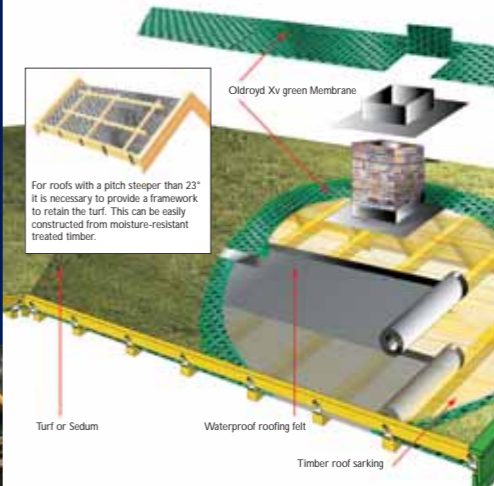
*Thermo-plastic poly-olethins



Pitched turf roof, Loch Lomond, Scotland.

FOR PITCHED GREEN ROOFS.
ESPECIALLY SUITABLE FOR HIGH
DEPTH PLANTING.

TYPICAL APPLICATIONS
• Pitched turf and green planted roofs



Typical roof membrane application

KEY BENEFITS OF OLDROYD Xv green

- Multi-layer polypropylene and TPO construction gives superior strength and ensures that the special Oldroyd fixing plug creates a very tight and neat fastening, minimising the chance of leakage.
- Its unique X pattern makes it easy to apply around corners, architectural features and chimneys.
- Rubberised outer layer and X pattern provide a safe anti-slip working surface on pitched roofs, and reduce the chance of the membrane slipping.
- Can act as a root barrier when used in conjunction with Oldroyd Overseal tape.
- Rigid polypropylene and recycled material in the central layer.
- For fixing instructions visit www.fixoldroyd.com

Waterproofing systems for pitched green roofs tend to be simpler than those for flat green roofs, as "pooling" of water has less potential to cause a problem. Nevertheless, as with all waterproofing products, the success of the system is dependent upon the quality of installation.

PITCHED GREEN ROOFS

Typically, the studded Oldroyd Xv green membrane is laid over a suitable exterior grade bitumen-based roofing felt to form a waterproof drainage layer. The turf or sedum layer is then laid directly over the Oldroyd Xv membrane.



OLDROYD Xv20green

Oldroyd Xv20 green is a membrane with 20mm deep studs specifically for use where minimal soil depth planting is required, allowing pitched roofs of lighter construction to be used.

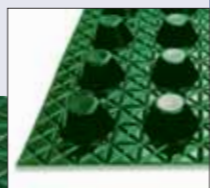
Manufactured from high-grade polypropylene with a TPO* outer layer, Oldroyd Xv20 green has a rubberised surface on both sides to provide an extremely tough non-slip, easy to use membrane. It also provides a large water reservoir to accommodate growing mediums that can thrive in a reduced soil depth.

Oldroyd Xv20 green benefits from the same Multi-Layer Technology as Xv green, allowing recycled material to be used within the central layer and virgin material in the outer layers, improving the integrity of the product and benefiting the environment.

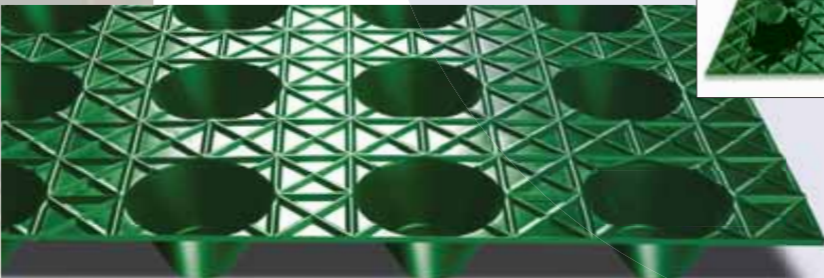
*Thermo-plastic poly-olethins



FOR PITCHED LIGHTWEIGHT ROOF CONSTRUCTION AND MINIMAL DEPTH GROWING MEDIUM.



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KEY BENEFITS OF OLDROYD Xv20 green

- Specifically designed for pitched roofs with shallow planting depth.
- Multi-layer polypropylene and rubberised construction give superior strength, minimise the risk of the membrane slipping and provide a much safer working surface.
- Its unique X pattern makes it easy to apply around corners, architectural features and chimneys.
- Rigid polypropylene and recycled material in the central layer.
- For fixing instructions visit www.fixoldroyd.com

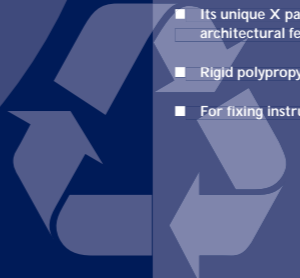
TYPICAL APPLICATIONS

- Pitched sedum and green roofs



SEDUM ROOFS

Reasons for installing a sedum roof system are visual appeal, helping to reduce the environmental impact of a new construction, creating a habitat for native flora and fauna, and improving the performance of the building. Sedums will change colour with the seasons, both through flower and foliage, adding further interest to the roof.



OLDROYD Xv20greenXtra



CREATING EFFECTIVE DRAINAGE FOR GREEN AND TURF ROOFS

Oldroyd Xv20 greenXtra is a durable perforated membrane with a 20mm deep stud designed specifically for use in green and living roofs. The studs collectively form a rainwater reservoir, providing water for the roof plantings which is useful in areas of low rainfall. The 8mm diameter perforations allow any excess water to drain away. Oldroyd Tp felt laid on top of the membrane ensures root aeration and retains growing medium.

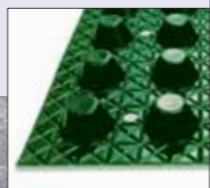
Oldroyd Xv20 greenXtra membrane provides water management for green and living roofs and contributes to a reduction in the rate of rainwater run-off. As part of the Oldroyd family of green roof membranes, Xv20 greenXtra is made from high-grade polypropylene with a TPO* outer layer. This creates a rubberised surface on both sides, providing an extremely tough non-slip membrane which is easy to use, even at low temperatures and around complex constructional details. Oldroyd Xv20 greenXtra has the same safety benefits and is fully compatible with other membranes in the Oldroyd Membrane System.

*Thermo-plastic poly-olethins



FOR EXTENSIVE PLANTING REGIMES, FLAT ROOFS, ROOF GARDENS, BROWN ROOFS AND ROOF TERRACES.

Extensive planting on the roof of residential parking garage, in Dublin, Eire, using Oldroyd Xv20 greenXtra.



- TYPICAL APPLICATIONS
- Flat green roofs and roof gardens
 - Brown and biodiverse roofs



KEY BENEFITS OF OLDROYD Xv20 greenXtra

- Perforated to prevent waterlogging of substrate.
- Ideal for use in creating large green roof habitats. Provides a water reservoir for roof plants, useful in areas of low rainfall.
- Multi-layer polypropylene and rubberised construction give superior strength.
- Its unique design makes it easy to apply around corners, architectural features and chimneys.
- Provides a safe anti-slip working surface.
- Rigid polypropylene and recycled material in the central layer.
- For fixing instructions visit www.fixoldroyd.com



BIODIVERSE ROOFS

To some extent all green roofs can be said to encourage biodiversity as they provide a habitat that supports life-forms that would be unable to survive on a more traditional roof structure.

Biodiverse roofs (also known as brown roofs or rubble roofs) share many of the qualities and benefits of green roofs, but differ in that they are designed to meet specific biodiversity objectives.



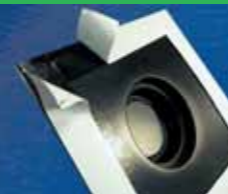
Oldroyd green roof membranes are part of an integrated waterproofing and drainage system. The range of accessories for the system is extensive ensuring ease of use and enhancing functionality and effectiveness.

CREATING EFFECTIVE DRAINAGE FOR GREEN AND TURF ROOFS

The range of accessories is constantly evolving, for further information on the use of Oldroyd green roof membrane system accessories please visit the website: www.fixoldroyd.com



SYSTEM ACCESSORIES



Pipe collar with sealing tape



Oldroyd Tp filter fleece



Green turf plug with nail



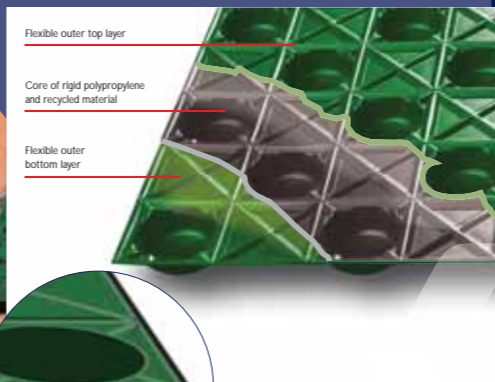
Turf roof hook



Sealing rope



Jointing mastic



Flexible outer top layer

Core of rigid polypropylene and recycled material

Flexible outer bottom layer

THE BENEFITS OF MULTI-LAYER TECHNOLOGY

- Multi-Layer Technology™ featuring an inner core made from rigid polypropylene and recycled material, enhancing structural integrity and benefiting the environment.
- Unique 'X' pattern makes the membrane easier to work with, cutting and folding around complex constructional details and corners is much simpler than with conventional membranes.
- Available in a variety of widths and lengths.
- 50 Year Product Guarantee.
- The manufacturing process complies with NS-EN ISO 9001:2000 and European Environmental Management System NS-EN ISO 14001.

Through a microscope (left), the quality of the technology employed in the manufacturing process can be clearly seen in this cross-section.





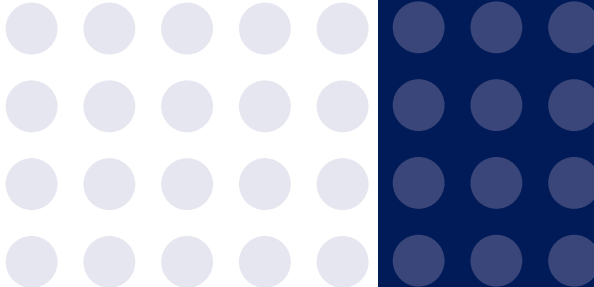
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We have invested a great deal of time and resources into establishing working practices to ensure a consistent and measurable quality in all of our products.

Our quality procedures are far in excess of the standards demanded by current regulations.

Care of the environment is of great importance to us.

We have recently developed our new multi-layer technology to maximise the use of recycled material in manufacturing and environmental routines have been introduced and integrated into existing ISO systems.



The company possesses the following ISO Certificates:
NS-EN ISO 9001:2000 and
European Environmental Management System
NS-EN ISO 14001



Product safety information is available on request. The information corresponds to our current knowledge on the subject. It is offered solely to provide possible suggestions for your own requirements. It is not intended however to substitute any testing you may need to conduct to determine for yourself the suitability of our products for your particular purposes. This information may be subject to revision as new knowledge and experience becomes available. Since we cannot anticipate all variations in actual end-use conditions, Oldroyd makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent right.

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