

## Data Sheet

The PROGREEN Turf Green Roofing System provides a traditional Norwegian green roof finish for pitched roof applications. In countryside areas, turf roofs help building developments to blend in with the rural environment whilst in town and cities they can soften the urban landscape.

The PROGREEN Turf roof is suitable for both new build and refurbishment projects with plywood or timber decks. Due to the weight loadings of a turf roof system, a structural engineer must be consulted.

The green roof system must be able to drain freely so that the vegetation does not become ponded in water. It is also essential that the system is able to store enough water to survive drought conditions. Therefore, it is important that a Protan approved horticultural consultant assesses the individual roof to specify a suitable system.

PROGREEN Turf roofs are ideal for pitched roofs, but are also suitable for flat roofs. Additional drainage and protection layers may be required dependant on roof design. Please consult Protan Technical Services for further advice.

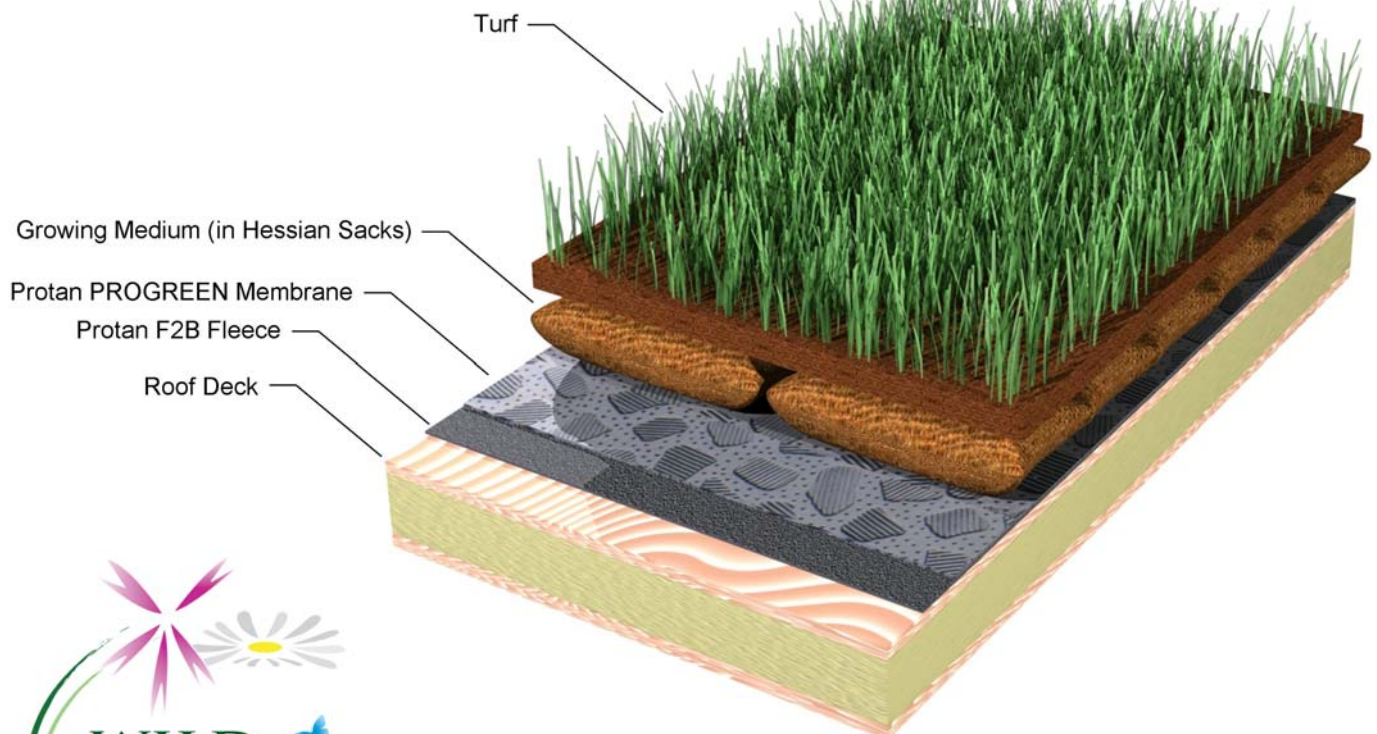
PROGREEN Turf Roof		
Component	Weight	Depth
Protan F2B Fleece	0.14 kg/m <sup>2</sup>	0.5 mm
Protan PROGREEN Membrane	1.9 kg/m <sup>2</sup>	1.5 mm
Turf Growing Medium*	150-250 kg/m <sup>2</sup>	150-200 mm
Turf Planting Scheme	~15-20 kg/m <sup>2</sup>	n/a

\* Saturated Weight

### System Designs

Suitability of Protan Green Roof Systems are subject to inspection and wind calculations carried out by Protan (UK) Ltd. The PROGREEN membrane is mechanically fixed when used in a turf roof application.

A structural engineer must be consulted to access the load bearing capacity of the roof and building structure.



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### Installation

The waterproofing membrane layer must be installed by Protan approved applicators who have received special training and are regularly updated with information about the system.

The design and layout of the waterproofing system are the responsibility of Protan technical services. All installed roofing membranes must be inspected by a Protan Technical manager during installation.

A leak test must be performed prior to the green roof layers being installed.

The planted element of the system must be installed by a partner green roof contractor who have expertise in the installation and upkeep of a healthy, functional green roofing system. The growing medium is installed in hessian bags which allows for easy handling and a 'block work' layout reinforces the layer. A screed of 20mm is applied over the sacks to level out the surface and the turf mat is laid on top.

Turf Roof hooks are installed at 600mm centres at the eaves of the roof. The hooks support barge boards which bear a portion of the weight of the turf on the roof.

Additional drainage and protection layers may be required on roofs of 12° or less. Please consult Protan Technical Services for further advice.

### Environment

The PROGREEN Turf green roof system delivers a range of environmental benefits. Other environmental benefits include:

- Thermal & acoustic benefits
- Water retention
- Waterproofing membrane protection

For more information on the benefits of green roofs please see the PROGREEN literature.

### Maintenance & Inspection

We recommend that the roof area be inspected, in spring and autumn, for evidence of damage, cleaning of gutters and ensuring outlets are clear and free flowing, maintenance regime of the for the upkeep of the planted element.

The turf roof requires one cut per year in the autumn with cut material removed.



### Composition of Wild Flower Turf

The turf contains a seed mix of approximately 50% grasses and 50% flora, which include:

#### Grasses:

- Sheeps Fescue
- Creeping Red Fescue
- Red Fescue
- Crested Dogstail

#### Flora:

- Yarrow
- Field Scabious
- Meadow Cranesbill
- Cats Ear
- Birdsfoot Trefoil
- Musk Mallow
- Cowslip
- Meadow Buttercup
- Salad Burnet
- Betony
- Common Vetch
- Common Sorrel
- White Campion
- Rough Hawkbit
- Common Knapweed
- Galium Verum
- St Johns Wort
- Ox Eye Daisy
- Ragged Robin
- Ribwort Plantain
- Self Heal
- Yellow Rattle
- Red Campion
- Tufted Vetch
- Wild Carrot
- Meadowsweet
- Autumn Hawkbit
- Common Toadflax

Other finishes are available.

### References

For further technical information please refer to:

- BBA Certificate 00/3755
- Protan PROGREEN Membrane Datasheet
- Protan PROGREEN Planting Options Datasheet

**For further information please contact Protan (UK) Limited.**