

## Practical Solutions to Sustainable Roof Construction

Whatever one's view over the global warming debate, a generally shared belief is that the Earth's resources are under substantial threat due to ever increasing demand.

Waste elimination and time optimisation are two very practical steps to reducing this impact in construction. In addition, this is sound business logic for all stakeholders.

Protan has put this challenge at the forefront of its commercial policy. The Protan philosophy is to optimise design at specification stage related to the type of roof construction required, for example flat, pitched, green etc.

### proplan™ *Optimal Design Service*

Using proplan™ unique design optimisation software, our Technical Team develop bespoke solutions from the most basic roof type to large, complex designs.

Working within AutoCAD Architecture, the software enables the membrane layout to be specified to the exact number of rolls, fixings and other components. It also allows easy comparison of different Protan Roofing Systems, for example large prefabricated panels or cut to length standard rolls.

Architectural CAD drawings are imported directly into proplan™ which produces the optimum design for the different Protan Roofing Systems. proplan™ can also schedule all of the materials required for the roof enabling virtual zero waste systems to be supplied.

Send your drawings to [optimise@protan.co.uk](mailto:optimise@protan.co.uk) and Protan will develop your sustainable waterproofing solution.

proplan™ offers many benefits to the specifier, contractor and building owner:

#### *Reduction*

- In installation costs
- In waste - the membrane is made to measure
- In logistical costs - the membrane is made to order not made for stock

#### *Saving*

- In completion time - allows internal trades to start earlier
- In process efficiency - using a single information platform



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The Protan membrane provides long term durability with proven weathering in excess of thirty years



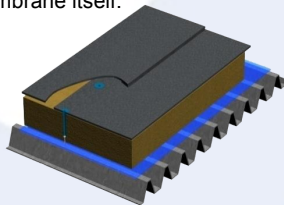
proplan™ is used in conjunction with the following Protan systems:

### STANDARD OVERLAP SYSTEM

In the Standard Overlap System the membrane is fixed to the substrate within its sidelap and overlapped by the adjacent sheet. Mechanical fixing and hot-air welding along the laps guarantees a homogenous seam which is of greater strength than the membrane itself.

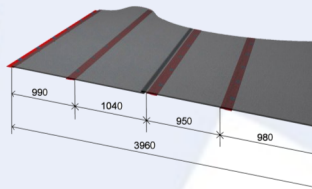
#### Benefits

- Can be installed on a variety of roof decks including steel, timber and concrete
- Applicable for refurbishment and new build
- Quick installation providing labour savings
- Fully recyclable as no adhesives are used
- Proven durability in excess of 30 years



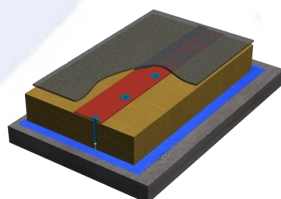
### PREFABRICATED SHEETS SYSTEM

Protan Prefabricated sheets are ideal for large, simple roof designs that would traditionally require the use of the Standard Overlap System and 1m sheets. Prefabricated sheets enable large areas of Protan membrane to be installed rapidly by reducing the number of welding operations by up to six-fold.



### SECRET FIX SYSTEM

Protan has developed a unique system with factory engineered backing strips which enable non-penetrating mechanical attachment of the membrane. Protan's unique Secret-Fix System may be specified on projects where uplift and/or timescales are a significant factor. The system has been developed with high strength backing strips which are factory welded to the underside of the membrane. The system provides great resistance to wind uplift because fixings are distributed over the entire membrane area.

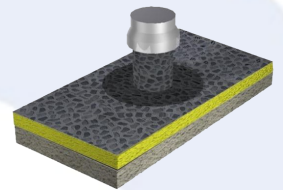


Secret-Fix membrane can be manufactured individually to the customers needs, attaching the Secret-Fix strips at intervals that are ideally suited to the roof and environment.

### PROVAC VACUUM ROOFING SYSTEM

**PROVAC**, Protan's unique vacuum roofing system, works with the forces of nature to provide durability and protection even in the most extreme conditions.

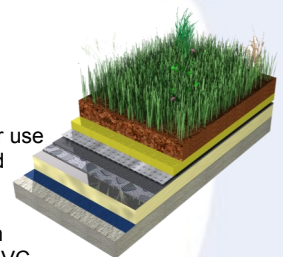
**PROVAC** works by loose laying Protan SE membrane, only fixing around the perimeter and penetrations. Strategically placed vents create negative pressure within the system fixing the membrane to the substrate. The stronger the wind forces, the better the system works.



### PROGREEN

Protan's unique **PROGREEN** membrane is for use on all PROGREEN Extensive, Biodiverse and Turf roof systems.

**PROGREEN** membrane is manufactured from pliable PVC reinforced with glass fibre. The PVC contains stabilizers which make the product resistant to both high and low temperatures and a fungicide for added protection against microbe attack.



The **PROGREEN** system is designed with secret-fix strips that are factory welded to the reverse side of the membrane. This allows the membrane to be either loose laid or mechanically fixed depending on the project requirement.

All Protan Roofing Systems provide long term durability with proven weathering in excess of thirty years. Protan (UK) Ltd is a full member of The Single Ply Roofing Association (SPRA); demonstrating the company's commitment to the improvement of single ply roofing materials and the installation process in the United Kingdom.