

Protan prefabricated system

The Protan Prefabricated System is a mechanically fixed roof system that makes use of Protan's unique, prefabricated rolls of Protan SE membrane

SUITABLE ROOF DECKS

The Protan Prefabricated System can be installed on the following roof decks in both warm and cold roof constructions:

- Profiled steel (minimum thickness 0.7mm)
- Plywood/OSB3 (minimum thickness 18mm)
- Softwood timber
- Concrete (subject to completion of pull-out tests)
- Aluminium (minimum thickness 0.9mm)

INSTALLATION

The fasteners are fixed to the roof deck through secret-fix strips factory-welded to the underside of the Protan membrane.

Adjacent rolls of membrane are welded together using semi-automated hot-air welding equipment. This guarantees a homogenous seam, which is of greater strength than the membrane itself. Minor works are carried out using hand-held hot-air welding equipment.

Using an automatic welding machine ensures a good, reliable weld that can withstand the wind uplift forces to which the membrane will be subjected.

PROTAN PVC SINGLE-PLY MEMBRANES

Prefabricated Protan SE PVC single-ply membrane is installed in the Protan Prefabricated System. Its knitted polyester reinforcement gives the membrane the tensile strength necessary for membranes used in mechanically fixed systems.

Side laps should measure a minimum of 40mm with a 40mm-wide hot-air weld. End laps should be butt-jointed and waterproofed by a Protan SE membrane cover strip.

Protan SE membrane can be recycled at the end of its working life.

PROPERTIES IN RELATION TO FIRE

Results of tests indicate that a system comprising 0.7mm profiled steel decking, 50mm polyurethane insulation with an aluminium foil facing on the upper side and glass tissue facing to the underside, and one layer of Protan SE mechanically fixed, will be unrestricted.

Results of tests indicate that a system comprising 0.7mm profiled steel decking, 0.21mm thick vapour control layer, 90mm foil-faced polyurethane insulation, and one layer of Protan SE mechanically fixed can be classified under BS EN 13501-5:2005 as B_{ROOF} (t4).

Results of tests indicate that a system comprising 0.7mm profiled steel decking, a polyethylene vapour control layer, 150mm foil faced Kingspan TR26 PIR insulation, and one layer of Protan SE mechanically fixed can be classified under BS EN 13501-5:2005 as B_{ROOF} (t4).

Results of tests indicate that a system comprising an 18mm plywood deck, a polyethylene vapour control layer, 150mm foil faced Kingspan TR26 PIR insulation, and one layer of Protan SE mechanically fixed can be classified under BS EN 13501-5:2005 as B_{ROOF} (t4).

REFERENCES

For further technical information, please refer to:

- Protan (UK) Ltd SE Membrane Technical Data Sheet
- BBA Certificate 98/3459

All of the above documents are available from Protan (UK) Ltd.

