

# STRP Pro High Performance Reinforced Foil VCL

## Product Description

Novia® Foil Laminate Reinforced Polythene Vapour Control Membrane (STRP Pro) is a premium specification reinforced and foil laminated polythene vapour control membrane. It is designed for use in insulated wall, roof and floor applications, including warm flat roofs, where very high concentrations of moisture vapour need to be controlled.

Novia® STRP Pro is particularly suitable for use in metal profile clad industrial buildings, the education sector and commercial properties, but can be used in all insulated building constructions. Novia® STRP Pro must be professionally installed in conjunction with our 2-tape sealing system to ensure a fully airtight seal. For further details on the tapes, please see relevant technical datasheets on individual products.

## Features

- Air-leakage barrier and vapour control layer (AVCL)
- Offers improved r-value when installed facing a minimum 25mm air gap due to reflective surface
- Suitable for use in commercial cladding systems
- CE Approved and CPR compliant. Declaration of Performance available on request
- Complies with BS EN 13984
- Very tough, tear-resistant and reinforced multilayer polythene laminate with an aluminium foil core
- Extremely low vapour permeability
- Minimises interstitial condensation
- Improves the insulation performance
- Helps buildings to meet the requirements of BS EN 5250:2011
- Install with Novia 2-tape sealing system
- Ideal for use with Novia breather membranes

## Typical Applications

- Air-leakage barrier and vapour control layer (AVCL)
- Suitable for use in commercial cladding systems
- Wall, roof and floor applications

	Value
Standard Width	1600mm
Roll Length	50m
Roll Weight	27kg
Nominal Weight	314g/m <sup>2</sup> EN1849-2
Tensile strength MD/CD	345/250N/50mm EN 12311-1
Max elongation at tensile strength (MD/CD)	25/20% EN 12311-1
Tear resistance MD/CD	130/240N EN 12310-1
Water vapour permeability in sd	4000m EN 1931 EN12572
Water vapour resistance	2000MNs/g By calculation

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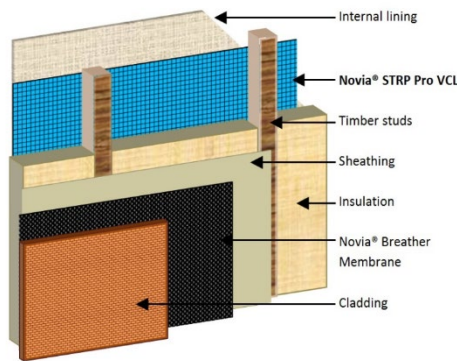
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Reflectivity	57% ASTM C1371-04A
Water vapour permeability after ageing	Pass EN 1931 EN 1296
Water tightness at 2kPa	Pass EN 1928
Reaction to fire	NPD Class EN 13501-1

## Installation guidance

VCLs should always be installed on the warm side (i.e. the inside) within all wall, roof or floor insulated frame applications, and would normally be used in conjunction with Novaia® external breather membranes which are situated on the cold side (i.e. the outside).



Noviaia® membranes will only perform their job if they are correctly installed using Novaia® tapes as part of a system. Novaia® uses a two-tape sealing system on all of our VCL products. It is essential that Novaia® membranes are installed correctly using our tapes, otherwise these products will not provide the necessary building design outcomes. One of the major causes of condensation problems within finished buildings is due to poorly installed membranes and where incorrect tapes have been used.

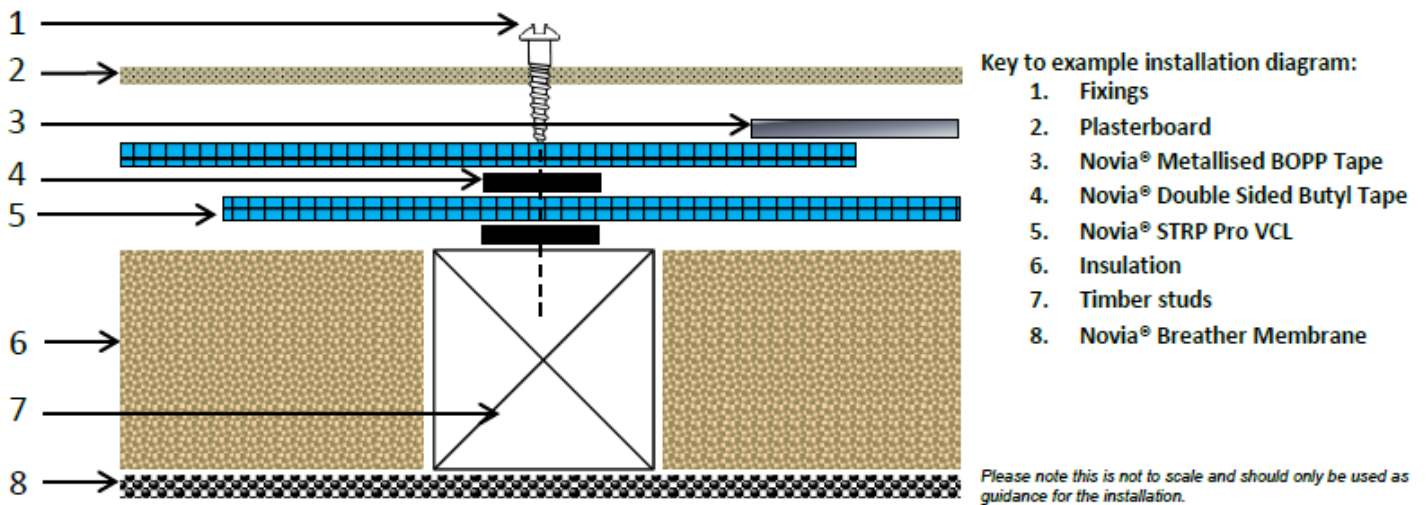
All Novaia® VCL products should be 100% fully sealed to the structure using one of our double-sided butyl tapes, and one of the foil or BOPP lap tapes to professionally complete the installation. The wider the tape used, then the stronger the final seal will be, and the easier it will be to install as there is more margin for error, so choose a tape based on your own particular application and budget.

Noviaia® recommends our 30mm wide butyl tape and our 60mm Metallised BOPP tape for all standard VCL installations. Fix the membrane to the structure using suitable galvanised or stainless fixings that will be permanent.

All VCL membrane joints should have a minimum 150mm overlap and be situated on a stud, rafter or other suitable solid fixing point.

We also recommend that in order to improve overall airtightness, butyl tape is pre-applied to all the areas where a fixing is to be made. By preparing the installation in this way, when fixing either the VCL membrane itself or the final wall covering such as plasterboard, then the final seal will still be maintained.

Care should be taken to ensure that the membrane is not damaged during installation, and that all service entry points are properly sealed.



## Other notes

The passage of water vapour through a building envelope needs to be correctly managed in order to limit unwanted and damaging precipitation or condensation within the interstitial layer (the layer of the external building fabric, walls / roof and insulation). This would occur over the winter in the UK as heavily moisture laden warm air moved outwards through the structure and cooled, due to the typical 20c to 25c temperature difference between the internal and external environmental conditions. As cool air can hold much less moisture, warm air that already has a high humidity will release moisture into the atmosphere in the form of water droplets. Think of this process as the changing of water from a gas into a liquid. This water will damage the internal structures of the building over the long term, and reduce the thermal performance of the insulation. As little as 3% moisture deposited within the interstitial layer can reduce the stated thermal performance of some types of insulation by 30% or more.

Vapour Control Layers, also known as Air and Vapour Control Layers (VCLs or AVCL's) are used to manage the transition through the building envelope of naturally occurring water vapour. Water vapour is gaseous water (i.e. water in the form of a gas) which is produced by a range of general building uses and also by the construction process itself. One way that water vapour moves through the building envelope is by the process of diffusion, whereby it passes directly through a material rather than via any breaks or holes in the structure itself.

However, direct moisture diffusion through materials is not the only way that water vapour moves through a building structure. Novia® VCL products will also prevent the unwanted movement of air through any physical holes within the structure, a process which is referred to as air-leakage - a naturally occurring effect caused by the heat-transfer process of convection. Prevention of air-leakage is vital to reduce expensive convection energy losses, and this is achieved by providing a sealed and air-tight barrier. However, air leakage will also deposit large amounts of unwanted moisture in exactly the same way as vapour diffusion does, and installations that do not take account of these issues will inevitably have serious problems.

For the optimum effectiveness of any vapour control layer, ensure that the building is constructed fully in accordance with all current Building Regulations and Standards.

Please note: The above technical information is given as a guide and is based on recent test data obtained under laboratory conditions. Materials should be fully tested by the end user to establish suitability of the product for the intended application. March 2024

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