

Novia® VC8 Reflective Vapour Control Layer

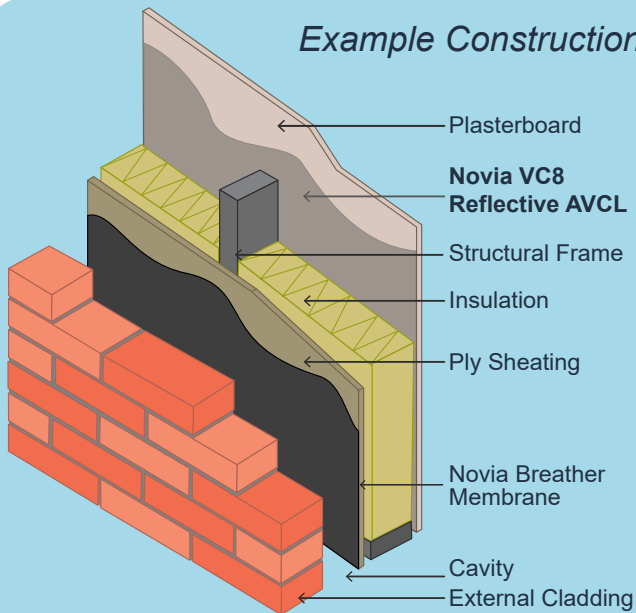
Novia® VC8 Reflective is a technologically advanced reflective air-tight vapour check membrane, designed for use as an air leakage barrier and vapour control layer (AVCL) for use in insulated wall, roof and floor applications.

This product is a reflective vapour control layer which delivers a low moisture vapour permeability solution. **Novia® VC8** helps to prevent interstitial condensation problems and is also highly reflective and so delivers greatly improved U and R values when correctly installed.

To provide an air tight seal **Novia® VC8** must be installed in conjunction with suitable **Novia®** tapes.



Example Construction



- CE approved to BS EN 13984
- Install with Novia tapes
- Helps buildings to meet the requirements of BS 5250
- High reflectivity and low emissivity surface which can deliver improved U values
- Low moisture vapour permeability minimises interstitial condensation
- Improves insulation performance, reducing energy costs
- Ideal for use in conjunction with Novia® breather membranes for insulated frame applications

	Value	Units	Test Method
Standard width	1.5	m	EN 1848-2
Roll length	50	m	EN 1848-2
Roll weight	6	kg	EN 1849-2
Nominal weight	77	g/m ²	EN 1849-2
Tensile strength MD / CD	130 / 90	N/50mm	EN 12311-1
Elongation MD / CD	30 / 30	%	EN 12311-1
Tear resistance MD / CD	65 / 65	N	EN 12310-1
Water vapour permability in Sd	8	m	EN 1931 EN ISO 12572
Reflectivity	86	%	EN 15976
Resistance to water penetration	Pass		EN 1928
Reaction to fire	F	Class	EN 13501-1



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Installation guidance :

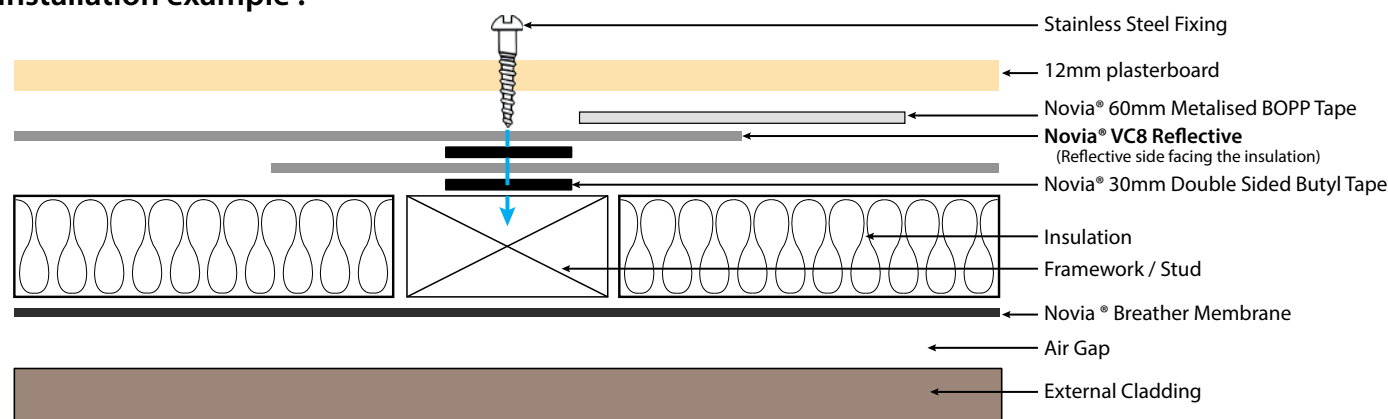
Air and Vapour Control Layers (AVCL) should always be installed on the warm side, the inside of the building envelope, within all insulated wall or roof applications. AVCLs should normally be used in conjunction with **Novia®** breather membranes which are installed on the cold side, the outside of the building envelope, before cladding is installed.

Novia® membranes will only perform their job correctly if installed using **Novia®** tapes as part of a system. It is essential that **Novia®** membranes are installed correctly using these tapes, otherwise they 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, the use of incorrect tapes or where membranes have been damaged during installation. To ensure correct performance **Novia®** AVCL products should be 100% fully sealed to the structure using our double-sided butyl tape.

We recommend the use of **Novia® 30mm wide Double Sided Butyl tape** and **Novia® Metalised BOPP tape** for all **Novia® VC8 Reflective** installations.

- We recommend that in order to improve overall air tightness, 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 AVCL membrane itself or fixing the final wall covering such as plasterboard, the airtight seal will still be maintained.
- All AVCL membrane joints should have a minimum 150mm overlap and be situated on a stud, rafter, timber or other framework where possible.
- Fix **Novia® VC8 Reflective** to the structure using suitable galvanised or stainless fixings that will be permanent.
- Care should be taken to ensure that the membrane is not damaged during installation, and that all service entry points are properly sealed.
- Achieved U and R values of the construction are improved when **Novia® VC8 Reflective** is installed with the reflective side facing a minimum 25mm air cavity.

Installation example :



Please note - this diagram is not to scale and should only be used as guidance for the installation.

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General notes on Air and Vapour Control Layers

The passage of water vapour through a building envelope needs to be correctly managed 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 usually occur over the winter in the UK as heavily moisture-laden warm air moves outwards through the structure and cools, due to the typical 20°C to 25°C 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.

Air and Vapour Control Layers are used to manage the transition through the building envelope of naturally occurring water vapour. Water vapour is gaseous water which is produced by a range of general building uses and 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**[®] AVCL 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 airleakage is vital to reduce expensive convection energy losses, this is achieved by providing a sealed and airtight barrier. However, air leakage will also deposit large amounts of unwanted moisture in the same way as vapour diffusion does, and installations that do not take account of these issues will inevitably have serious problems.

Novia[®] Ltd stocks a wide range of grades and sizes of AVCL membranes and will always have one to suit your particular requirements readily available, including our reflective grades which improve the achieved U and R values of any given construction when installed facing a minimum 25mm cavity.

For the optimum effectiveness of any Air and Vapour Control Layer ensure that the building is constructed fully in accordance with all current Building Regulations and Standards.