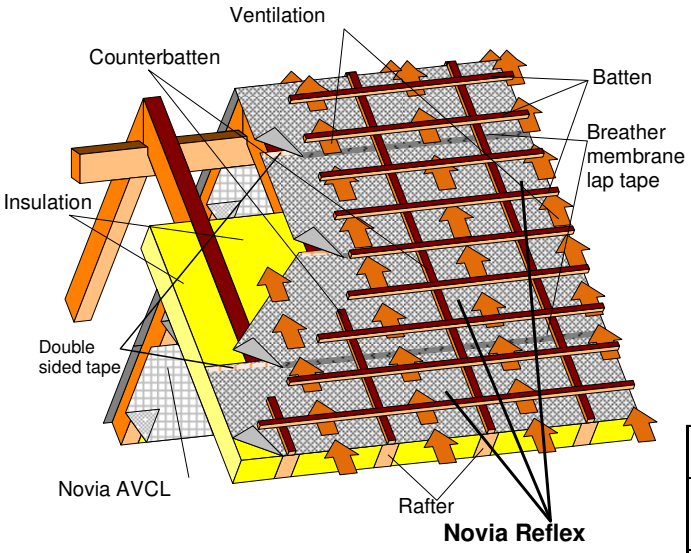
Novia®

Novia Reflex

Low emissivity breathable membrane for all insulated walls and roofs
For all enquiries call the sales desk on **01622 678952**

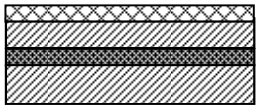
Novia Reflex is a high quality, versatile, low cost reflective breather membrane for all pitched cold and warm roofs, and insulated wall applications. The material complies with both EN 13859-1 (roofs) and 13859-2 (walls). When used in suitable constructions this membrane will deliver improved R and U values. The product has excellent water resistance characteristics, but still provides high breathability. It is also strong, having excellent tensile and nail tear strength. **Novia Reflex** also complies with EN 13501-1 fire classification grade E.



Typical Insulated Warm Roof Installation

- ✓ **Low emissivity roof underlay at an exceptionally competitive price**
- ✓ **Single product for all roofs and walls**
- ✓ **Tri-laminate membrane with low emissivity and high reflectivity**
- ✓ **Breathable membrane with maximum waterproofing properties – EN 1928 W1**
- ✓ **Significantly higher breathability than most other similar reflective products**
- ✓ **Grade E (Fire) and 3 months UV resistant**
- ✓ **High tensile and nail tear strength**
- ✓ **CE compliant to EN 13859-1 (roofs) and EN 13859-2 (walls)**
- ✓ **Complies with new European CPR rules**
- ✓ **Cooler in summer and warmer in winter**
- ✓ **Tested for new BS 5534 wind uplift requirements (see full map on final page)**

Composition:



Metalised PP – non woven
Breathable microporous film
PP – non woven

Size:

Standard width	1.5 metres
Roll length	50 metres
Roll weight	10 kg
Packing unit	50 rolls per pallet

Technical Data

Characteristic	Value	Units	Test Method
Weight	131	g/m^2	EN 1849-2
Tensile strength MD/CD	270/225	N/50mm	EN 12311-1
Elongation MD/CD	70/90	%	EN 12311-1
Tear resistance MD/CD	150/220	N	EN 12310-1
Resistance to air penetration	0.000	$m^3/m^3.h.50.pa$	EN 12114
Sd value	0.05	metres	EN 12572
Resistance to water penetration	W1 >250	Class cm	EN 1928 EN 20811
Resistance against fire	E	Class	EN 13501-1
Temperature resistance	-40 to +80	°C	EN 1109
UV Resistance	3	months	
Emissivity	0.18	ε	EN 15976
Emissivity (Aged)	0.19	ε	EN 16012

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New European Construction Products Regulations (CPR)

Novia Reflex is fully compliant with new mandatory CE marking requirements, introduced under the 2013 Construction Products Regulations. Under this new European directive, all products covered by a current hEN must comply with the new standard. Third party accreditation alone is no longer sufficient, nor relevant. Any affected products manufactured after the implementation date in July 2013 must conform to the new CPR standard, and must be CE approved.

Installation Guidelines For Walls

Fix the membrane to the wall structure; ensure upper layers overlap lower layers, and the reflective side faces outwards into the cavity. Work from the bottom moving upwards and ensuring there are minimum overlaps of 100 mm on the horizontal joints. Do not begin a vertical lap joint within 300 mm of a corner, and all vertical laps should be at least 150 mm. Ensure the bottom timber is also protected by an overlap. Fix at suitable intervals with galvanised nails, stainless staples or similar fixings that will be permanent.

Installation Guidelines For Roofs

Novia Reflex can be installed in all standard roof applications. It is suitable for use within BS 5543 wind uplift applications. On insulated warm roofs the membrane may be placed directly onto the insulation or boarded roof if required. **Novia Reflex** can also be used in conventional cold roof applications. Fix the membrane to the roof and ensure upper layers overlap lower layers. Work from the bottom moving upwards and ensure there are minimum overlaps used as shown within BS 5534:2014. The membrane should be overlapped 200 mm on each side of the ridge. All vertical overlaps must be situated on a rafter and must be sealed. Fix at suitable intervals with galvanised nails, stainless staples or similar approved fixings that will be permanent. At any entry points for services (soil pipes, vents etc.), ensure that Novia Reflex is properly sealed. Where pipes etc. penetrate the underlay, cut neatly and accurately and turn edges up to give a tight water-resistant fit, and ideally seal with Novia tape.

In order to comply with some BS 5534 wind uplift zone requirements you must use our single-sided **Novia Breather Membrane Lap Tape**. See wind uplift tables for full details. Where BS 5534 compliance requires the use of Novia tape, you may use a smaller 100mm overlap. The batten restrained results, not using Novia tape, were tested using the standard 150mm overlap.

An improved U-value may be obtained by installing the membrane in the opposite orientation, i.e. facing the reflective side backwards into a low-emissivity cavity. The low-emissivity cavity can be provided by installing a 25mm counter-batten, and there is also the additional benefit of minimising the build-up of any contaminants on the reflective surface. You should then install a second breathable membrane such as **Novia Black** on top of the **Novia Reflex** low emissivity layer, facing outwards as normal.

Tapes

We strongly advise the use of Novia installation tapes, which will greatly improve the performance and overall airtightness of the build even if tape is not specified for mandatory use within a particular zone under the BS 5534 wind uplift test results. We offer our single-sided **Novia Breather Membrane Lap Tape** for standard installations, but for high specification work where there is an even greater emphasis on air-tightness we also suggest the use of our optional **Novia Double-Sided Adhesive Tape**. For the very best standards of installation and air-tightness we advise the use both types of tape, as this will ensure a long lasting, high quality, breathable and air-tight seal is maintained.

Other notes

- Always ensure that for warm roof applications, a vapour barrier such as **Novia VC2** or **VC6 Reflective** is installed beneath the insulation, as only 1 - 3% moisture contamination within the insulation can adversely affect its thermal performance by up to one third.
- Improved R and U values will require the design of a cavity in front of the reflective surface. The thickness of the cavity, the degree to which it is ventilated and the angle of installation, will all contribute to determining the achieved additional reflective benefit. For further details see various available software packages such as the BRE calculation model.
- Do not leave **Novia Reflex** unnecessarily exposed to weathering. High winds, excessive UV and precipitation could cause damage to the reflective surface. If you must leave the membrane exposed for excessive periods of time, then the use of a suitable temporary protection material is highly recommended.
- **Novia Reflex** will reduce the risk of condensation within the roof space but in certain atmospheric conditions it can never be totally eliminated.
- Always handle material carefully to prevent tears and punctures. Repair any damage which does occur with suitable tape.
- Ensure that sufficient ventilation is incorporated to comply with all relevant building regulations and technical standards, such as BS 5250.
- Store all materials in suitable conditions.
- A Declaration of Performance (DoP) is available upon request.

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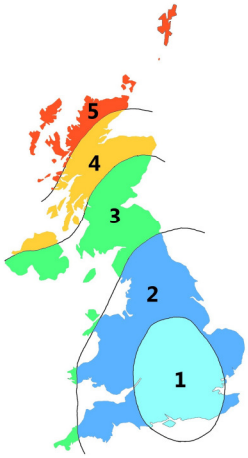
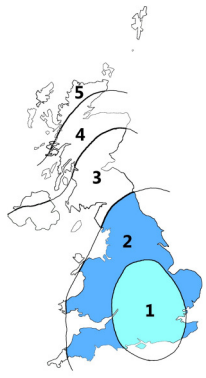
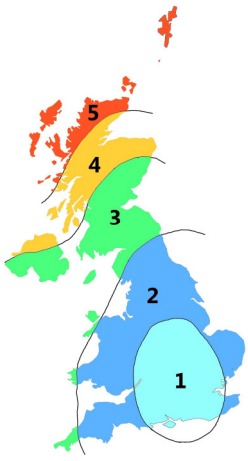
Wind uplift suitability. Test results from BRE to BS 5534 Annex A

100mm taped overlap test results (Taped using Novia Breather Membrane Lap Tape)			
Product	**Identification**	**Manufacturer**	**Website**
Novia Reflex	LR	Novia Ltd	www.novia.co.uk
Batten Gauge	**Declared wind uplift resistance, p D (N/m2)**	**Zone Suitability**	**Wind zone map**
≤ 345 mm	1967	1-5	
≤ 250 mm	No test required	No test required	
≤ 100 mm	No test required	No test required	

150mm overlap batten restraint test results			
Product	**Identification**	**Manufacturer**	**Website**
Novia Reflex	LR	Novia Ltd	www.novia.co.uk
Batten Gauge	**Declared wind uplift resistance, p D (N/m2)**	**Zone Suitability**	**Wind zone map**
≤ 345 mm	975	1-2	
≤ 250 mm	2257	1-5	
≤ 100 mm	No test required	No test required	