



INTELLIGENT MEMBRANES



RETROFIT EDITION

**REBUILDING FOR PERFORMANCE: A
HIGH-EFFICIENCY RETROFIT**

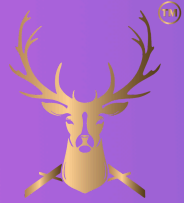
PASSIVE PURPLE & PASSIVE PURPLE BRUSH



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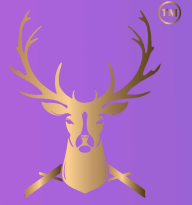
A Complete Transformation, Built for Performance

This project involved a full-scale renovation, including a complete strip-out and the addition of new extensions to an existing property. The goal was clear: transform the building into a high-performance, energy-efficient home with a robust airtight envelope.

By combining meticulous preparation with the application of Intelligent Membranes' Passive Purple system, the project achieved an impressive level of airtightness while future-proofing the building for long-term performance.



The Challenge: Achieving True Airtightness



The project began with a full internal strip-out, exposing the building fabric and allowing for a clean, controlled approach to airtightness. All joints, junctions, and connection points were carefully sealed using Passive Purple Brush, ensuring that potential air leakage paths were addressed from the outset. Airtight Fleece Tape was applied to critical edges and difficult-to-access areas, providing additional reinforcement where needed.

Once detailing was complete, Passive Purple Internal Vapour Control Membrane was applied across walls and ceilings, forming a continuous airtight and vapour control layer. This seamless application is key to preventing uncontrolled air movement and moisture ingress within the building structure.



The Solution

A strategic combination of products and application methods ensured full coverage across the building:

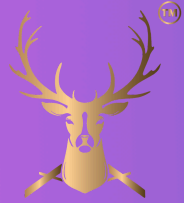
- Passive Purple Brush used for detailed sealing of all junctions and penetrations
- Airtight Fleece Tape applied to reinforce edges and complex areas
- Passive Purple Internal membrane spray-applied across all internal surfaces



Unlike traditional systems, this liquid-applied approach:

- Eliminates gaps and overlaps
- Bonds directly to substrates
- Adapts to complex geometries with ease

The result is a fully sealed, high-performance internal envelope designed to deliver consistent results across the entire structure.



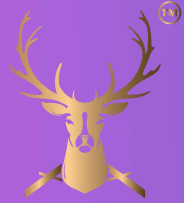
Installation Process

The success of this project relied on a structured and coordinated installation:

- Full strip-out completed to expose all structural elements
- Passive Purple Brush applied to all service penetrations, junctions, and connection points
- Airtight Fleece Tape installed to strengthen critical detailing areas
- Passive Purple Internal membrane spray-applied across walls and ceilings
- Works coordinated with follow-on trades to maintain the integrity of the airtight layer

This method ensured a controlled, efficient installation process with minimal risk of performance gaps.





Results

Airtightness Achievement: 0.3 ACH

Achieving an airtightness score of 0.3 ACH is a strong testament to both the quality of the products and the precision of the installation.

This level of performance delivers:

- Reduced energy consumption
- Improved thermal efficiency
- Greater internal comfort
- Long-term durability of the building fabric

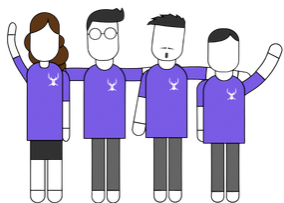
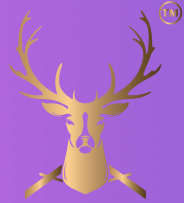


Proof That Preparation Drives Performance

This project highlights a key principle:
Airtightness is won in the details.

By focusing on preparation, correct product selection, and precise application, the team was able to deliver a building that performs as well as it looks.





Rated Excellent



NBS

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