



INTELLIGENT MEMBRANES



MCLAUGHLIN & HARVEY

**WESTER HAILES HIGH SCHOOL IN
EDINBURGH, SCOTLAND**

**PASSIVE PURPLE X &
AIRTIGHT FLEECE TAPE**

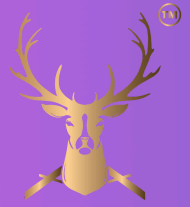


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Building a Passivhaus School for the Future



Wester Hailes High School is the City of Edinburgh Council's new £44 million secondary school, designed by Architype and delivered by McLaughlin & Harvey through the SCAPE Scotland framework.

Constructed to the rigorous Passivhaus standard, the school has been designed to provide exceptional energy efficiency, reduced operational costs and a healthier learning environment for pupils and staff.

Achieving Passivhaus certification requires outstanding building airtightness, with a maximum air permeability target of 0.6 Air Changes per Hour (ACH).



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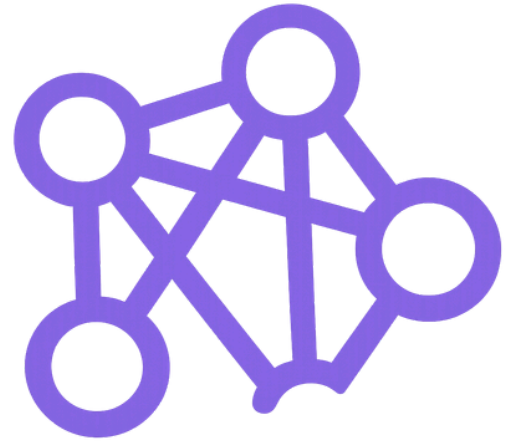


The Airtightness Challenge

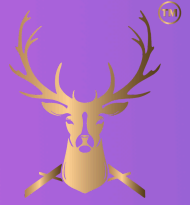
Delivering Passivhaus performance on a large education project presents significant challenges.

With a concrete structural frame, extensive prefabricated wall panels and thousands of critical junctions throughout the building envelope, maintaining a continuous airtight line required careful planning and expert installation.

To meet these demanding performance requirements, Intelligent Membranes supplied and installed Passive Purple X, our Class B fire-rated airtight vapour control membrane.



A Complete Airtightness Solution

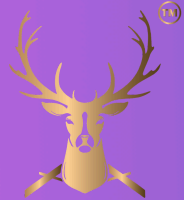


Passive Purple X was installed as part of a comprehensive airtightness strategy, with each product playing a key role in creating a continuous, fire-rated building envelope.

IM Airtight Fleece Tape was applied around all window openings and across panel-to-concrete frame junctions, ensuring continuity of the airtight layer at some of the building's most critical interfaces.

Passive Purple X Brush was used to seal panel joints, corners and difficult detailing before the main membrane application, providing complete coverage at every junction.



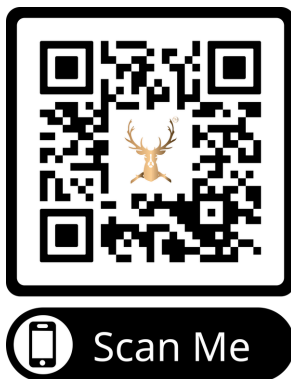
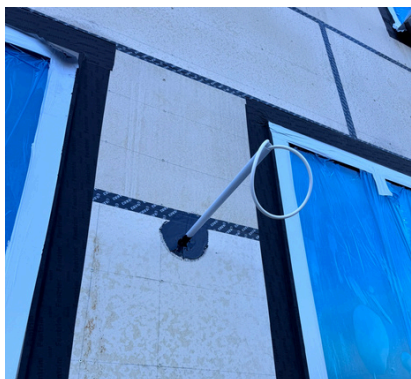


The Greatest of All Time

Around service penetrations, including pipes and cable entries, GOAT Sealant was applied to create flexible, durable airtight seals that accommodate movement while maintaining the integrity of the airtight layer.

Once all detailing had been completed, Passive Purple X was spray-applied across the wall surfaces to form a single, continuous, seamless, Class B fire-rated, airtight vapour control membrane throughout the building envelope.

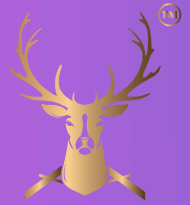
This integrated system ensured that windows, structural junctions, service penetrations and wall surfaces all worked together to deliver exceptional airtightness performance, contributing to the outstanding pre-air test result.



The Greatest Of All Time



Passive Purple X



The Fire-Rated Airtight Membrane for High-Performance Buildings

Passive Purple X is an advanced liquid-applied airtight vapour control membrane engineered for projects where exceptional airtightness, enhanced fire performance and intelligent moisture management are essential.

Suitable for both internal and external applications, Passive Purple X creates a seamless airtight layer while remaining vapour open, allowing the building fabric to manage moisture naturally.

Whether you're delivering a Passivhaus development, high-rise recladding project, education facility or complex retrofit, Passive Purple X provides a reliable solution that helps buildings achieve outstanding airtightness without compromising breathability.

PASSIVE PURPLE TM



Why Choose Passive Purple X?

Fire Class B Rated

Airtight and Smoke Tight

Vapour Open for Intelligent Moisture Management

Internal and External Applications

Spray or Roller Applied

UV Resistant

Crack Bridging Technology

Anti-Fungal Protection

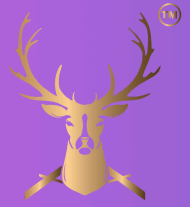
Self-Cleaning Surface

Suitable for Concrete, Masonry, Timber and Sheathing Boards

Ideal for New Build and Retrofit Projects

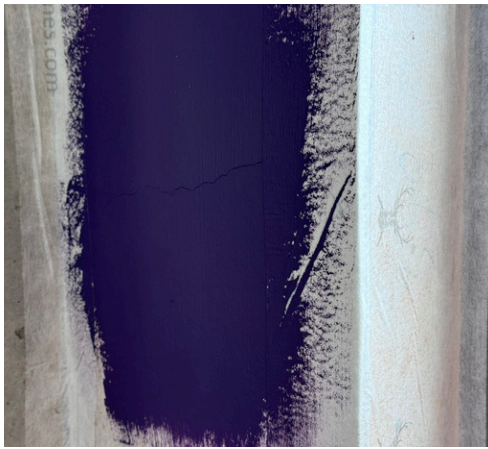


Exceptional Airtightness Performance



The completed building achieved an outstanding pre-air test result of just 0.078 ACH, significantly surpassing the Passivhaus requirement of 0.6 ACH.

According to McLaughlin & Harvey, this represents one of the lowest airtightness results ever recorded in the UK, demonstrating the effectiveness of a well-designed airtightness strategy combined with quality installation and close collaboration between all trades on site.



Collaboration Delivers Results

Outstanding airtightness is achieved through teamwork.

Throughout the Wester Hailes High School project, every trade understood the importance of protecting the airtight layer, ensuring that service penetrations, structural junctions and installation details maintained the integrity of the building envelope from start to finish.

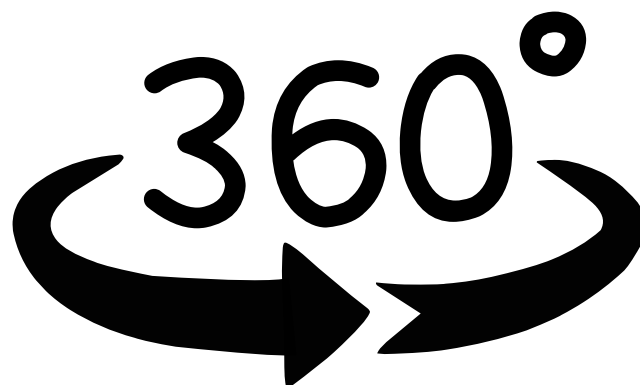
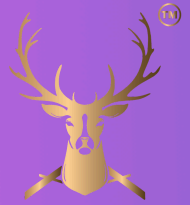
This collaborative approach was instrumental in achieving one of the UK's most impressive airtightness results.

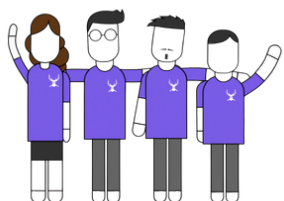


Experience the Project in 360°

To showcase the installation process, the project was captured using immersive 360° photography.

Explore the building from installation through to completion and see how Passive Purple X was applied across the project by visiting our dedicated 360° project gallery.





Rated Excellent



Trustpilot



NBS

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