



TECHNICAL DATA SHEET (TDS)

PASSIVHAUS AIRTIGHT SEALANT | 2025/26



1. Product

1.1 Product Description Passivhaus Airtight Sealant is a BBA certified, foil gun applicator applied vapour control membrane for connections between panels, around joists and service penetrations. Which can be applied to multiple substrates.

With its fibre reinforced polymer, Passivhaus Airtight Sealant can bridge gaps of up to 7-10mm. Ideally you want the structure to have as little gaps in as possible to save time and cost on materials. Once all connections, joints, boards, and penetrations are complete and located, simply use a foil applicator gun to fill and seal over the gaps and joints. This alone will reduce air leakage an enormous amount leaving your final spray coat “if required” the icing on the cake. With a filler style technique and putty like consistency, Passivhaus Airtight Sealant is extremely easy and fast to apply with no surface or area a problem.

Passivhaus Airtight Sealant dries to form a flexible airtight membrane with strong adhesion to the substrate, and intelligent vapour control. Passivhaus Airtight Sealant is easily applied with a paintbrush to get at any hard to reach, awkward spots where traditional tapes and membranes fail. Unlike many traditional methods of sealing these areas, Passivhaus Airtight Sealant can adhere to multiple substrates like blockwork, plastic and metal work and does not shrink, deteriorate, or come unstuck over time. Also, its liquid putty state makes it easy to brush into and around all gaps and cracks effortlessly.

Ideal for all project sizes from private houses to commercial buildings. Generally, before the application of Passivhaus Airtight Sealant, you would seal all gaps and joints with Passivhaus Sealant, paying close attention to the joist zones, window reveals and panel to DPC/top plate connections. This prepares you for the spraying a smooth quick coat knowing nothing has been missed and guarantees a perfect airtight score. Also, whilst doing this, it helps locate and amend any issues with the structure that may be unknown to the client or contractors. Our philosophy is, if every contractor works to our tight standard detail, this level of precision and careful quality of work flows through the job and makes the final structure perfect with minimal issues ‘if any’ in all areas and trades.

Passivhaus Airtight Sealant is certified as permanent airtightness and intelligent vapour control by the BBA and the Passive House Institute.

The intelligent vapour control characteristics of Passivhaus Sealant prevents moisture migration into the applied surface. However, allows excess humidity to escape.

***Windows and Door reveal-** Window and door reveals are a common culprit for allowing significant air leakage. With its fiber-reinforced make-up, Passivhaus Airtight Sealant will completely seal and dry into a tough airtight membrane that will not peel or become unstuck like the classic silicones and tapes.

***Connections and joints-** Bridge the larger gaps in the wall connections and joints for a tough yet flexible seal that allows itself to work with building settlement before spraying over with Passivhaus Airtight Sealant.

***Wall and ceiling-** Completely seal the wall to ceiling connections with a perimeter application of Passivhaus Airtight Sealant.

***Slab connections-** Completely seal the slabs to the panels and walls with a perimeter application of Passivhaus Airtight Sealant.

***Service and Penetrations-** Service penetrations can be the downfall of any building. Passivhaus Airtight Sealant (along with Passive Purple and Passive Purple Editions) are applied around objects that penetrate any surface of the envelope sealing where most tapes and membranes fail and are awkward to apply.

***Awkward Joist Zones-** Areas like joist zones play a major role in air leakage changes/shrinkage occur resulting in hidden air leaks. Passivhaus Airtight Sealant have 45% elongation/elasticity which bonds to and stretches/moves with the substrate without decreasing in performance, resulting in a firm and still completely airtight high-performance detail.

***Cost Effective-** Don't risk tapes and membrane peeling away or becoming unstuck, leaving your house open for air leakage, costing you labour, energy and stress. Unlike traditional tapes, Passivhaus Airtight Sealant can be applied with great speed and on damp surfaces.

1.2. Product Adhesion

Passivhaus Airtight Sealant can adhere to the following substrates.

- 1.2.1. Concrete, masonry, bricks, plaster/render, engineered wooden boards, tapes, membranes, aluminium, steel and PVC.

1.3. Product Characteristics

- 1.3.1. Liquid with reinforcing fibres
- 1.3.2. A 600ml sausage will do roughly 10 l/m (depending on the size of hole on foil applicator gun and substrate)
- 1.3.3. Ambient and substrate surface temperature during application and drying > 5 degrees Celsius
- 1.3.4. Density + / - 1.15kg / litre
- 1.3.5. Drying time 4-48 hours depending on substrate temperature, air humidity, applied layer thickness and ventilation

1.4. Product Packaging

Tubes 600ML- 1.268 lbs- 0.6 litres

- 1.4.2. * Box of 12 7,200ML.

1.5. Product Storage

Passivhaus Airtight Sealant should be stored in the dry, out of direct sunlight, between 5-20 degrees Celsius. Storage for 24 months of manufacture date in original unopened packaging.

2. Application

2.1. Preparation

- 2.1.1. * Standing water, dust and any loose particles are removed with a vacuum cleaner
- 2.1.2. * Fill any holes or gaps bigger than 5mm with a non-shrink gap filling mortar or non-shrink polyurethane foam. When using a polyurethane foam, cut off any excess after hardening.
- 2.1.3. * Passive Purple Internal Primer can be used for extra adhesion.
- 2.1.4. * Passive Purple Internal Primer can be applied to mineral surfaces which are highly absorbent or which have low water resistance.
- 2.1.5. * Passive Purple Internal Primer to new plasterboards or on dusty surfaces when applying in temperatures of > 25 degree Celsius.

2.2. Application

- 2.2.1. When applying Passivhaus Airtight Sealants, we recommend the following PPE as a minimum.
 - Suitable eye protection
 - Gloves
 - Face Mask (which covers the mouth and nose)
- 2.2.2. Apply Passivhaus Airtight Sealant with a foil applicator gun.
- 2.2.3. Apply Passivhaus Airtight Sealant in 1 layer. This depends on the hole size on the foil applicator gun
- 2.2.4. Passivhaus Airtight Sealant can be applied both on dry and humid (damp) surfaces.
- 2.2.5. Passivhaus Airtight Sealant should be worked well in using a smearing action to ensure continuous unbroken coverage.
- 2.2.6. Avoid (local) layer thickness of > 5mm such as in joints / openings or pock marks.
- 2.2.7. Apply over an area sufficient to overlap finished plaster or render by 50mm, in all cases apply a minimum of 50mm above DPC at ground level.



2.2.9. Internal brick connections



2.2.10. Timber frame connections



2.2.11. Window former

2.3 Cleaning



2.3.1



* Passivhaus Airtight Sealant accessories can be easily cleaned using water.

2.3.2.

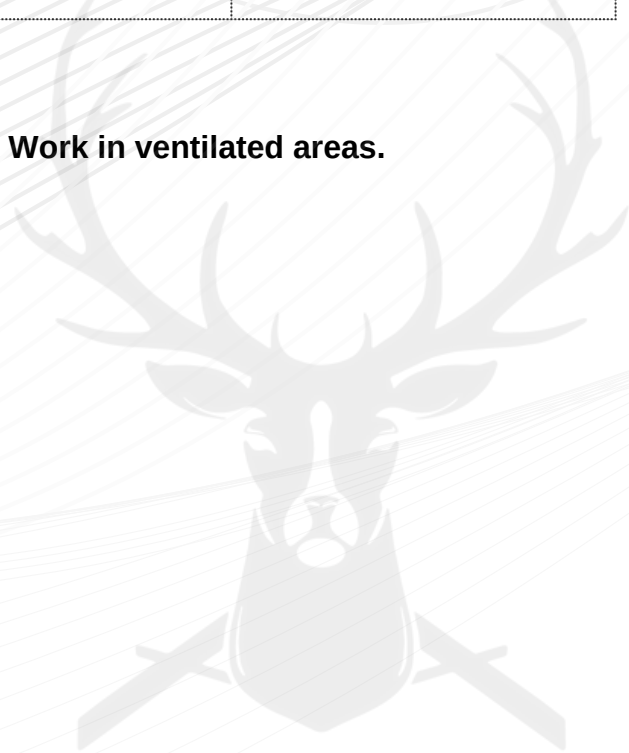
* Passivhaus Airtight Sealant can be recycled once any Passivhaus Airtight Sealant's product has been removed from the tubs and lids. This can be peeled off when dry or cleaned using water.

3.0. Test report's

INSTITUTE	TEST	STANDARD	VALUE/RESULT
	<p>SYSTEM CERTIFICATION: AIRTIGHTNESS OF BUILDING CONNECTIONS.</p>	<p>PASSIVE HOUSE</p>	<p>PASS: COMPONENT A AIR PERMEABILITY: 0,04M3/(HM2)</p>
	<p>PRODUCT CERTIFICATION: PERMANENT AIRTIGHTNESS AND INTELLIGENT VAPOUR BARRIER. EXPECTED DURABILITY: LIFETIME OF THE CONSTRUCTION.</p>	<p>BBA</p>	<p>PASS</p>
	<p>RESISTANCE TO FATIGUE MOVEMENT</p>	<p>EOTA TR008:2004</p>	<p>PASS</p>
	<p>ELONGATION AFTER AGEING</p>	<p>BS EN ISO 527-3</p>	<p>262,7%</p>
	<p>DAMP DIFFUSION RESISTANCE FACTOR (SD) (DETAILED SD AND G VALUE TABLE IS AVAILABLE FOR THE PURPOSE OF CONDENSATION RISK ANALYSIS).</p>	<p>EN ISO 12572 (2001)</p>	<p>M-VALUE: 35967 0,5 KG/M² - SD: 11,5 - DRY: 0,32MM(320 MICRON) 0,75KG/M² - SD: 17,3 - DRY: 0,48MM(480 MICRON)</p>
	<p>WATERTIGHTNESS</p>	<p>ISO4624 (2002)</p> <p>Values after artificial ageing of sample membrane</p>	<p>PASS</p>
	<p>ADHESION ON RED BRICK (DRY)</p>		<p>> 1 N /MM²</p>
	<p>ADHESION ON RED BRICK (MOIST)</p>		<p>> 1 N /MM²</p>
	<p>ADHESION ON CONCRETE BRICK (DRY)</p>		<p>> 1 N /MM²</p>
	<p>ADHESION ON CONCRETE BRICK (MOIST)</p>		<p>> 1 N /MM²</p>
	<p>ADHESION ON CALCIUM SILICATE STONE (DRY)</p>		<p>ADHESION VALUE EXCEEDING SUBSTRATE STRENGTH</p>
<p>ADHESION ON CALCIUM SILICATE STONE (MOIST)</p>	<p>ADHESION VALUE EXCEEDING SUBSTRATE STRENGTH</p>		
<p>ADHESION ON PVC</p>	<p>0,8 N /MM²</p>		

INSTITUTE	TEST	STANDARD	VALUE/RESULT
	ADHESION ON ALUMINIUM	Tests realized by BBRI	> 1 N /MM ²
	ADHESION ON EPDM (TRIDEX)		> 1 N /MM ²
	ADHESION ON ROOFING		ADHESION VALUE EXCEEDING SUBSTRATE STRENGTH
	ADHESION OF SPRAY PLASTER (KNAUF MP75) ON PASSIVE PURPLE BRUSH.		ADHESION VALUE EXCEEDING SUBSTRATE STRENGTH
	FLAME PROPAGATION FIRE REACTION.	EN ISO 11925	PASS
	FREE FROM VOC, TVOC, CARCINOGENICS, AMONIA FORMALDEHYDE	EN ISO 16000-9/6 EN 717-1 EN 180 16000-28	
ICC NTA	FLATWISE TENSILE STRENGTH	ASTM C0297-16	ALL SUBSTRATE MET ICC-ES AC212 CRITERIA FOR ACCEPTANCE
ICC NTA	WATER SPRAY/ RAIN PENETRATION	ASTM E331	ALL SUBSTRATE MET ICC-ES AC212 CRITERIA FOR ACCEPTANCE

**SAFETY- Consult the Safety Data Sheet prior to application. Work in ventilated areas.
Always refer to the C.O.S.H.H SHEET.**



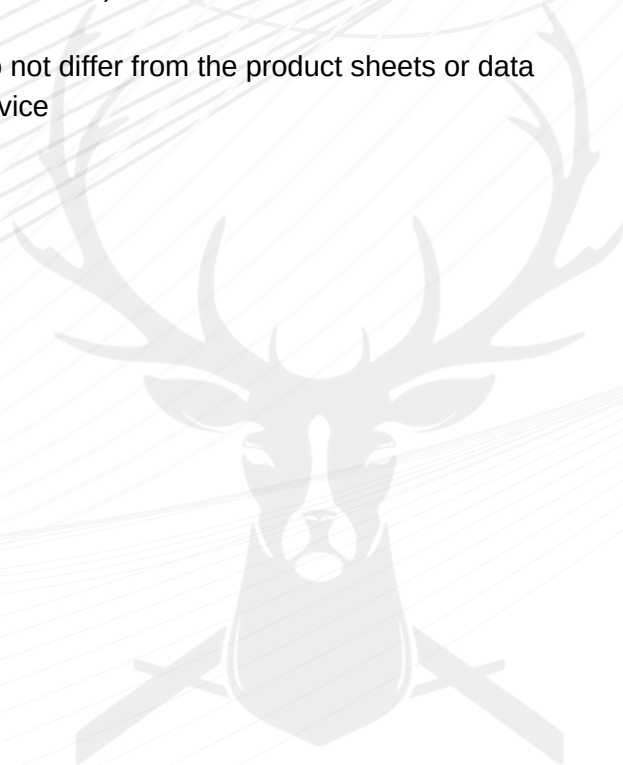
4.0. Do's and don'ts

DO'S

- 4.1. Do mix before use
- 4.2. Do use PPE according to the nature of work
- 4.3. Do clean up any spills in the area immediately to avoid slippery surface
- 4.4. Do store in a safe place away from freezing temperatures/extreme heats
- 4.5. Do recycle or clean and re-use empty tubs
- 4.6. Do mask any surface areas you do not want to get hit from potential overspray
- 4.7. Do always follow H&S guidelines
- 4.8. Do always know where on site accident kit is kept in case of emergency
- 4.9. Do always read the product sheet for further instructions and guidance before application
- 4.10. Do seal the end of the foil applicator gun after use

DON'TS

- 4.11. Do not use under 5 degrees or temperatures expecting to drop below 5 degrees or freezing point within the next 24-48 hours
- 4.12. Do not use in the rain or when rain is expected within the next 24-48 hours
- 4.13. Do not mix/dilute with water or solvents
Do not consume
- 4.14. Do not use for anything else other than its intended purpose of an Airtightness and vapour control barrier i.e. Do not use as a waterproofing/tanking
- 4.15. Do not mix with any other products
- 4.16. Do not keep outside in cold temperatures/always store in a safe place
- 4.17. Do not use as a protection for windows (its permanent)
- 4.18. Do not differ from the product sheets or data advice

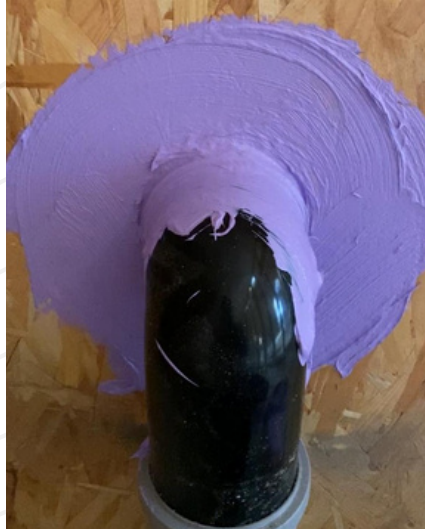


5.0 PASSIVHAUS AIRTIGHT SEALANT GALLERY

5.1. Connections and service penetrations examples:



5.1.2 Joist connection into masonry wall



5.1.3 Pipe connection through timber frame



5.1.4 Soil stack through floor



5.1.5 Retrofit



5.1.6 wood fibre

6.0. DATE OF THIS EDITION: 12/01/2025/26

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