™

TECHNICAL DATA SHEET (TDS)

INTERNAL AIRTIGHT LIQUID VAPOUR CONTROL PASSIVE PURPLE INTERNAL AND EDITIONS |2023

INTELLIGENT MEMBRANES

11.4KG

SPRAY APPLIED

PASSIVE PURPLE ™

INTELLIGENT AIRTIGHT LIQUID VAPOUR CONTROL MEMBRANE

THE ONE AND ONLY

- BBA APPROVED
- VOC FREE
- ADHERES TO ANY SUBSTRATE*

- RADON BARRIER
- PASSIVHAUS CERTIFIED
- 0.03 (AIR CHANGES PER HOUR)

SPRAY APPLIED

ROLL APPLIED

PRODUCT COLOUR: PURPLE

BBA

VOC FREE

PLEASE NOTE

*ADHERES TO MOST CONSTRUCTION MATERIALS SEE PRODUCT SHEET FOR MORE INFORMATION

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1. Product

1.1. Product Description

Passive Purple and Passive Purple Editions is a VOC free and M1 class water-based product. It's completely free of any nasty chemicals or fumes. What's more, as a water-based product, cleaning your airless spray device or rollers is a smooth, no mess task.

Passive Purple & Passive Purple Editions dries to form a flexible airtight membrane and intelligent vapour control with strong adhesion to the substrate.

Passive Purple & Passive Purple Editions is applied with an airless spray device or a roller.

Passive Purple and Passive Purple Editions is a water-based dispersion without organic solvents
Dried material can be disposed of as non-hazardous waste.

Passive Purple and Passive Purple Editions liquid airtight vapour control membrane is an airtight coating that is applied on all areas of an external envelope (warm side of the insulation of a building. This includes those difficult connection areas to the floor, wall, roof, and joist.

When Passive Purple and Passive Purple Editions is used on the warm side of the insulation, it can be applied to either face of the external envelope.

To install Passive Purple or Passive Purple Edition, you simply need to ensure the material or surface is dust free, solid and closed before starting the application.

A closed surface implies that holes and joints need to be closed beforehand. Large holes and joints can be closed with a fast setting cement-based products or polyurethane foam, small holes and joints can be closed with Passive Purple Brush or Passive Purple Brush Editions. This brush product is much thicker and is brush applied.

* BBA Certified & Passivhaus Certified – Passive Purple and Passive Purple Editions is a fully BBA certified liquid airtight vapour control layer.

* Radon Barrier – Passive Purple & Passive Purple Editions offers you a perfect Radon barrier to eliminate those nasty radon gases entering your building.

* Up TO 300m2 Coverage A Day – A single installer can apply up to 300 m2 of Passive Purple or Passive Purple Editions a day using a airless spray device. This speeds up the construction time and dramatically cuts labour costs.

* Passivhaus Certified – Passive Purple and Passive Purple Editions airtight vapour control is a certified Passivhaus component.

*M1 Class, VOC-Free- Passive Purple and Passive Purple Editions is an M1, VOC-Free water-based product. Zero nasty chemicals make it friendly for the user and the environment.

*Fire Class C- Passive Purple and Passive Purple Editions are fire-rated C, unlike paper membranes which are rated fire-class E.

*0.6 ACH or under- With a Passivhaus certified score of 0.03ach (20 times lower than required 0.6ach) Passive Purple and Passive Purple Editions can guarantee you a score of 0.6ach (air changes per hour)and under. Whether you're trying to achieve certified Passivhaus or just build to a Passivhaus standard, Passive Purple and Passive Purple Editions are your answer!

1.2. Product Adhesion

Passive Purple and Passive Purple Editions can adhere to the following substrates.

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

1.3. Product Characteristics

1.3.1.
* Liquid

1.3.2.
* Purple / White / Blue / Green / Orange /Red – But Passive Purple and Passive Purple Editions can be made into other colours on demand

1.3.3.
* Consumption 0.5 to 1 kg / m2/ 10.764 (depending on substrate)

1.3.4.
* Density +/- 1.2 kg / litre

1.3.5.
* UV / Weather / Outdoor resistance (Before finish) – 3 months

1.3.6.
* Temperature resistance (after drying) - -40 degrees C to + 70 degrees C

1.3.7.
* Drying time – 24 – 72 hours depending on conditions

1.4. Product Packaging

1.4.1.
Tubs 10kg- 22.0462 lbs - 2.6417 gallons- 10 litres
Tubs 11.4kg- 25.1327 lbs - 3.0116 gallons- 11.4 litres

1.4.2.
Pallets 44 tubs of 10kg – Total 440kg
Pallets 42 tubs of 11.4kg – Total 479kg

1.5. Product Storage

Passive Purple and Passive Purple Editions should be stored in the dry, out of direct sunlight, between 5-20 degrees. Storage for 12 months of manufacture date in original unopened packaging.
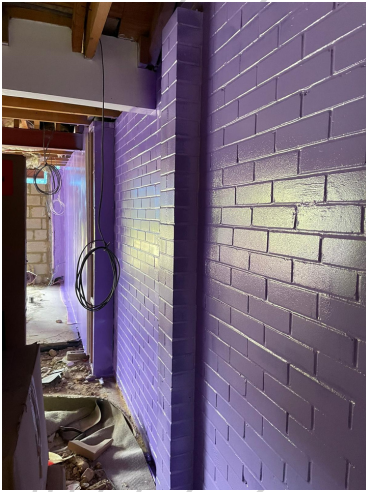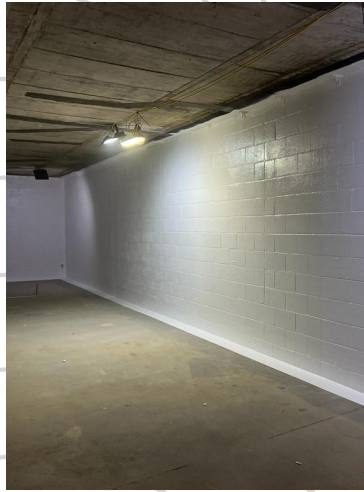
2. Application

2.1. Preparation

2.1.1. * Remove salt efflorescence, dust, loose parts should be removed with a vacuum cleaner and remove any standing water.

2.1.2. * Fill any holes and gaps bigger than 5mm with non-shrink mortar or non-shrink polyurethane foam. When using polyurethane foam, cut off excess after hardening. Fill any gaps over 5mm with Passive Purple Brush or Passive Purple Brush Editions. Passive Purple Brush or Passive Purple Brush Editions is the thixotropic variant of Passive Purple or Passive Purple Editions.

2.1.3. * Passive Purple Internal Primer can be used for extra adhesion.

2.1.4. * Apply primer to mineral surfaces which are highly absorbent, or which have low water resistance.

2.1.5. * Apply Passive Purple Internal Primer to new plasterboards or on dusty surfaces when applying in temperatures > 25 degrees C.

2.2 Application

2.2.1. * When applying Passive Purple and Passive Purple Editions, we recommend the following PPE as a minimum.
- Suitable eye protection

- Gloves

- Face mask (which cover the mouth and nose)

2.2.2. * Mix Passive Purple and Passive Purple Editions to a homogenous consistency with a handheld paddle mixer at a low speed.

2.2.3. * Apply Passive Purple and Passive Purple Editions in 2 layers. Total minimum consumption should be 0.5kg /m2 or about 500 microns, this to be verified with a thickness gauge. Maximum thickness per layer 2000 micron (2mm).

2.2.4. * Passive Purple and Passive Purple Editions can be applied to both dry and humid (damp) surfaces.

2.2.5. * Apply the second layer once the first layer is completely dry.

2.2.6. * To avoid risk of condensation, apply to the warm side of the insulation.

2.2.7. * Apply using an airless spray device (such as a Graco 595) or a long-haired roller suitable for water-based paints.

2.2.8. * When using an airless spray device spray 20-30cm from the surface at 90 degrees, this is to minimise any overspray.

2.2.9. * Spray tip 517 – 525

2.2.10. * Pressure 120bar

2.2.11. *Prior to application of any plaster product (Hard wall, dot and dab), Supergrip Primer MUST be used as an essential adhesion key.

2.2.12. Retrofit in Passive Purple
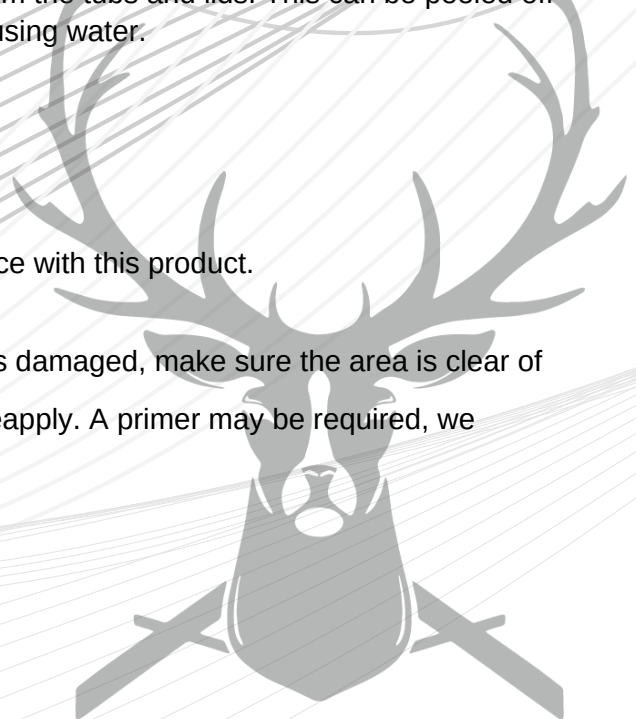

2.2.13. Retrofit in Airtight White

2.2.14. Graco ST Max ll 495 airless spray machine

2.3 Cleaning

2.3.1. Passive Purple and Passive Purple Editions can be easily cleaned from the airless spray devices or rollers using water.

2.3.2. Passive Purple and Passive Purple Editions tub and lids can be recycled once any Passive Purple or Passive Purple Editions product has been removed from the tubs and lids. This can be peeled off when dry or cleaned using water.
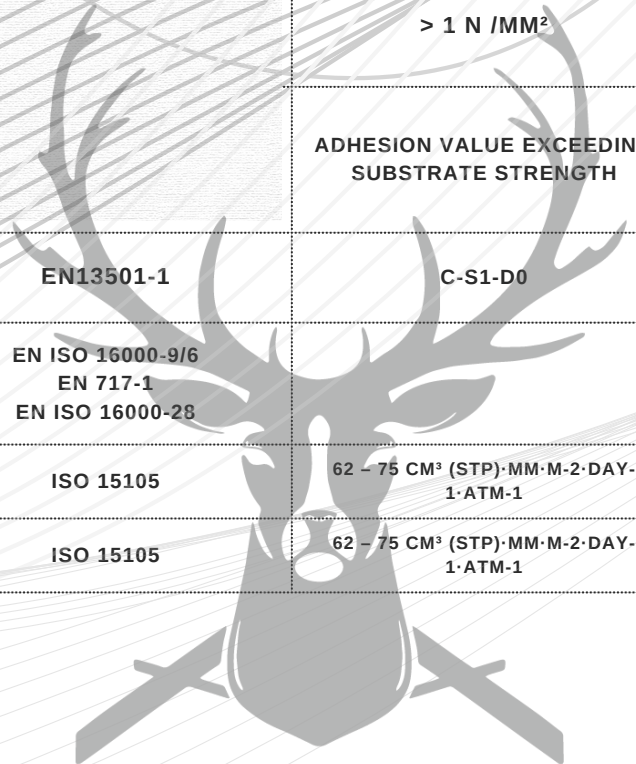
2.4 Maintenance

2.4.1. There is no maintenance with this product.

2.4.2. Repair- If the product is damaged, make sure the area is clear of debris and dust then reapply. A primer may be required, we recommend Supergrip.

3.0. Test report's

INSTITUTE	TEST	STANDARD	VALUE/RESULT
CERTIFIED COMPONENT Passive House Institute	SYSTEM CERTIFICATION: AIRTIGHTNESS OF BUILDING CONNECTIONS	PASSIVE HOUSE EN12114	PASS:COMPONANT A
GHENT UNIVERSITY	AIRTIGHTNESS SYSTEM WITH ROCKWOOL® PANELS ANCHORED ON/TROUGH PASSIVE PURPLE INTERNAL LIQUID MEMBRANE ON BLOCKWALL	EN12114	< 0,02 M³/H.M² - CLASS A
BBA BRITISH BOARD OF AGRÉMENT	PRODUCT CERTIFICATION: PASSIVE PURPLE INTERNAL® LIQUID SERVING AS PERMENANT AIRTIGHTNESS VAPOUR CONTROL RADON BARRIER.	**BBA**	PASS
	DURABILITY: SERVICE LIFE EQUAL TO THAT OF THE ELEMENT ONTO WHICH IT IS INSTALLED.		PASS
	DAMP DIFFUSION RESISTANCE FACTOR (SD) DETAILED SD AND G VALUE TABLE IS AVAILABLE FOR THE PURPODE OF CONDENSTION RISK ANALYSIS	EN ISO 12572	M-VALUE: 76584 0,5KG/M2 - SD 22,9 - DRY: 0,3MM(300 MICRONS) 0,75KG/M2 - SD:34,4 - DRY:0,45MM(450 MICRONS)
	INTELLIGENT VAPOUR CONTROL DAMP RESISTANCE:	BBA	SD: 0,8 – 40 METER G: 4 -200 M.N S/G
	RADON RESISTANCE	K124/02/95	3,3 X 10-12
	RESISTANCE TO FATIGUE MOVEMENT	EOTA TR008:2004	PASS
	ELONGATION AFTER AGEING	BS EN ISO 527-3	350,5%
	ADHESION OF UNIVERSAL BONDING COMPOUND ON PASSIVE PURPLE INTERNAL LIQUID.	BS EN 14496: 2017	PASS

INSTITUTE	TEST	STANDARD	VALUE/RESULT
	WATER TIGHTNESS	EN 14891	PASS
	ADHESION ON RED BRICK (DRY - MOIST)	ISO4624 (2002) Values after artificial ageing of sample membrane Testing realised by BBRI and verified by BBA.	> 1 N/MM²
	ADHESION ON CONCRETE BRICK (DRY - MOIST)		> 1 N/MM²
	ADHESION ON CALCIUM SILICATE STONE (DRY -MOIST)		
	ADHESION ON OSB AND MULTIPLEX WOOD		
	ADHESION ON ROCKWOOL INSULATION		
	ADHESION ON STEEL		
	ADHESION ON EPDM (TRIDEX)		ADHESION VALUE EXCEEDING SUBSTRATE STRENGTH
	ADHESION ON ROOFING		> 1 N /MM²
	ADHESION OF SPRAY PLASTER ON PASSIVE PURPLE INTERNAL LIQUID		> 1 N /MM²
	ADHESION ON INSULATION KINGSPAN KOOLTHERM K5 POLYURETHANE (PUR) POLYSTYRENE (EPS) PIR (POLYISOCYANURATE)		ADHESION VALUE EXCEEDING SUBSTRATE STRENGTH
Exova	EUROCLASS – REACTION TO FIRE	EN13501-1	C-S1-D0
VTT	FREE FROM VOC, TVOC, CARCINOGENICS, AMONIA FORMALEHYDE	EN ISO 16000-9/6 EN 717-1 EN ISO 16000-28	
	METHANE PERMEABILITY	ISO 15105	62 – 75 CM³ (STP)·MM·M-2·DAY-1·ATM-1
MECADI	METHANE PERMEABILITY	ISO 15105	62 – 75 CM³ (STP)·MM·M-2·DAY-1·ATM-1

INSTITUTE	TEST	STANDARD	VALUE/RESULT
ICC NTA	FLATWISE TENSILE STRENGTH	ASTM CO297-16	ALL SUBSTRATES MET ICC-ES AC212 CRITRIA FOR ACCEPTANCE
ICC NTA	WATER SPRAY/ RAIN PENETRATION	ASTM E331	ALL SUBSTRATES MET ICC-ES AC212 CRITRIA FOR ACCEPTANCE
ICC NTA	FIRE TESTING	ASTM E84-21A	CLASS A

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 ALWAYS use Supergrip primer

4.2. Do use PPE according to the nature of work

4.3. Do before use a new/different product completely drain or bleed and flush lines of equipment from previous products

4.4. Do clean up any spills in the area immediately to avoid slippery surface

4.5. Do use the drip tray when possible

4.6. Do use correct tip size and pressure suited to the person spraying the product an the product itself

4.7. Do store in a safe place away from freezing temperatures/extreme heats

4.8. Do recycle or clean and re-use empty tubs

4.9. Do use a wet film gauge to measure the thickness of the product

4.10. Do mask any surface areas you do not want to get hit from potential overspray

4.11. Do always follow H&S guidelines

4.12. Do always know where on site accident kit is kept in case of emergency

4.13. Do use a wet film gauge to verify the total consumption of 0,5-1kg/m2 (0,500-1000 microns)

4.14. Do always read the product sheet for further instructions and guidance before application

4.15. Do seal tub back up after use

4.16. Do mix before use

DON'TS

4.17. Do not use under 5 degrees or temperatures expecting to drop below 5 degrees or freezing point within the next 24-48 hours

4.18. Do not use in the rain or when rain is expected within the next 24-48 hours

4.19. Do not mix/dilute with water or solvents

4.20. Do not consume

4.21. Do not use for anything else other then its intended purpose of an Airtightness and vapour control barrier i.e. Do not use as a waterproofing/tanking

4.22. Do not mix with any other products

4.23. Do not spray LESS than the guided amount of at least 0,5kg/m2 0.500 microns verify using a wet film gauge

4.24. Do not keep outside in cold temperatures/always store in a safe place

4.25. Do not use as a protection for windows (its permanent)

4.26. Do not differ from the product sheets or data advice

5.0 PASSIVE PURPLE INTERNAL GALLERY

5.1. Retrofit project examples:

5.1.2 Passive Purple retrofit

5.1.3. Ceiling to floor retrofit

5.1.4 Airtight White retrofit

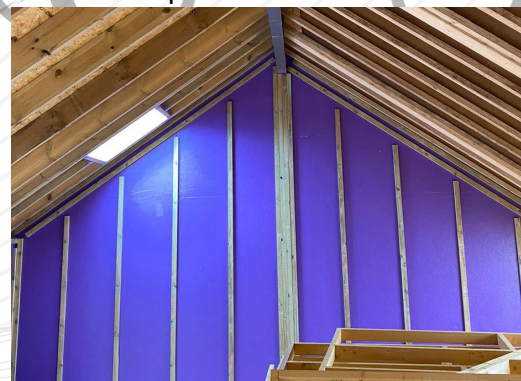## 6.2. Timber frame projects:

5.2.1 Spraying on to OSB board

5.2.2 Service battens installed over Passive Purple Internal

5.2.3 Prepped walls by brushing joints between boards and nail heads

5.2.4 Gable end wall in roof space of first floor

6.0. DATE OF THIS EDITION: 12/01/2023

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