



## TECHNICAL DATA SHEET (TDS)

PASSIVE PURPLE® EXTERNAL - PASSIVE PURPLE® X  
2025/26



## 1. Product

### 1.1. Product Description

Our **Fire Class B Liquid Applied Weather Barrier** is an advanced protective solution designed to meet the highest standards of fire safety and energy efficiency. This versatile weather barrier is **Passivhaus certified**, ensuring airtightness and thermal performance, while also providing robust protection against external weather conditions.

#### Key Features and Benefits:

- **Fire Class B Rated:** Specifically designed with fire safety in mind, this weather barrier offers a Class B fire rating, providing enhanced resistance to flame spread and adding an extra layer of safety to your building projects.
- **KIWA Approved:** Approved as an intelligent moisture management membrane.
- **Passivhaus Certified:** This product is meticulously engineered to meet the stringent requirements of Passivhaus standards, ensuring optimal airtightness and energy efficiency. It's ideal for creating sustainable, eco-friendly, and low-energy buildings.
- **Liquid Applied for Seamless Coverage:** Unlike traditional sheet barriers, our liquid applied membrane forms a seamless, continuous layer that conforms to any surface. This eliminates weak spots like seams and overlaps where air or moisture could penetrate.
- **Weatherproof Protection:** Designed to withstand harsh environmental conditions, it acts as a powerful barrier against wind, rain, and other external elements, ensuring the building envelope remains airtight and protected.
- **Versatile Application:** Suitable for a variety of substrates, including timber, steel, and concrete, this weather barrier can be applied to both new builds and retrofit projects, making it a flexible choice for a wide range of construction needs

### 1.2. Product Adhesion

Passive Purple External can adhere to the following substrates

- 1.2.1. Concrete blocks, Clay bricks, Calcium silicate stone
- 1.2.2. Insulation panels; PIR, PUR, Polystyrene, kooltherm, glasroc x sheathing
- 1.2.3. Plywood

### 1.3. Product Characteristics

- 1.3.1. Liquid
- 1.3.2. Purple/ Black/ Anthracite- But Passive Purple External can be made into other colours on demand
- 1.3.3. Total indicative consumption. Min 0.75 KG per m<sup>2</sup>/ 0.625mm/625 microns
- 1.3.4. Density (kg/l): 1, 2
- 1.3.5. pH 9,
- 1.3.6. Solids (%):> 50%
- 1.3.7. Temperature resistance after drying: -20 °C to + 70°C

### 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 44 tubs of 11.4kg - Total 501kg

### 1.5. Product Storage

Passive Purple External should be stored in the dry, out of direct sunlight, between 5 – 20 °C. Storage for 24 months of manufacture date in original unopened packaging

## 2. Application

### 2.1. Preparation

- 2.1.1. Remove salt efflorescence, dust, loose parts and standing water.
- 2.1.2. Passive Purple External is applied to a closed surface. If necessary, fill any holes or joints using a fast-setting cement-based product or a polyurethane foam.
- 2.1.3. Passive Purple External Primer can be used for extra adhesion.
- 2.1.4. Apply to porous and mineral based substrates and fibre cement boards. Low strength substrates such as calcium silicate stone. Water sensitive plasters.
- 2.1.5. Will improve adhesion on dusty substrates
- 2.1.6. When applying Passive Purple External in hot conditions.
- 2.1.7. Application on humid surfaces is allowed but remove any standing water.

## 2.2. Application

- 2.2.1.** When applying Passive Purple External, we recommend the following PPE as a minimum:
- Gloves
  - Face mask (which cover mouth and nose)
  - Suitable eye protection
- 2.2.2.** Mix Passive Purple External using a drill paddle or handheld paddle
- 2.2.3.** Do not add any water or solvents to the product
- 2.2.4.** Minimum requirements during application are at least 24 hours after application
- 2.2.5.** Minimum temperature 5°C, this also includes the substrates
- 2.2.6.** Do not apply in full sunlight
- 2.2.7.** Do not apply during rainfall
- 2.2.8.** Passive Purple External is applied with an airless spray device (Such as a Graco 595)
- 2.2.9.** Passive Purple External will need to be applied in two layers. The second layer being applied when the first layer has dried
- 2.2.10.** Passive Purple External drying time is weather dependant and varies between 4-12 hours in normal conditions
- 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.** Spray example



**2.2.13.** Roll example



**2.2.14.** Spray machine



## 2.3. Cleaning

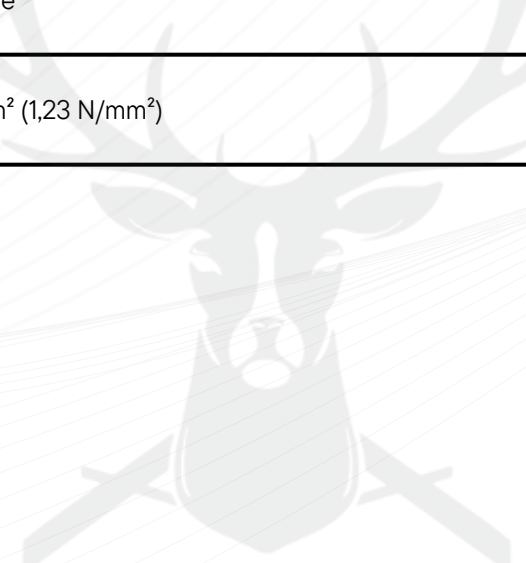
- 2.3.1.** Passive Purple External can be easily cleaned from the airless spray device or rollers using water
- 2.3.2.** Passive Purple External tub and lid can be recycled once any Passive Purple External product has been removed. This can be peeled off when dry or cleaned using water

## 3.0. Test report's

TEST	NORM	VALUE (INDEPENDENT TEST REPORTS)
IMPERMEABILITY TO WATER	NBN EN 1062-3	W < 0,1KG/M2. H 95
VAPOUR PERMEABILITY (M)	EN ISO 12572	M: 2486 SD: 0,6-1 SD VALUE:CALCULATED VALUE BASED ON A CONSUMPTION OF 0,6-0,8KG/M2
CO2 PERMEABILITY	EN 1062-6	SD > 75 METER (CLASS C1) PASS ACCORDING EN1504-2
AIRTIGHTNESS SYSTEM WITH ROCKWOOL® PANELS ANCHORED ON/TROUGH PASSIVE PURPLE EXTERNAL MEMBRANE ON BLOCKWALL	EN 12114	0,03 M³/M².H
CRACK BRIDGING	EN 1062-7	23 DEGREES CELCIUS – PASS – CLASS A3 -10 DEGREES CELCUIIS -PASS-CLASS A4 PASS ACCORDING EN1504-2
ADHESION ON MINERAL SURFACES SUCH AS CONCRETE BRICK. (WITH USE OF PRIMER AS BONDING)	NBN EN ISO 4624 (2016)	> 1 N/MM²; PASS.
ADHESION OF PASSIVE PURPLE EXTERNAL ON FIBRE CEMENT BOARDS. (WITH USE OF PRIMER AS BONDING)	NBN EN ISO 4624 (2016)	> 1 N/MM²; PASS.

<b>ADHESION OF PASSIVE PURPLE EXTERNAL ON PLYWOOD. (WITH USE OF PRIMER AS BONDING)</b>	<b>ASTN CO297</b>	<b>PASS.</b>
<b>ADHESION OF PASSIVE PURPLE EXTERNAL ON INSULATION BOARDS TYPE RECTICEL. ( PIR, PUR, KOOLTHERM, GLASROC</b>	<b>NBN EN ISO 4624 (2016)</b>	<b>PASS.</b>
<b>ELONGATION AFTER AGEING</b>	<b>NBN EN ISO 12311-1 (1999)</b>	<b>&gt;40%</b>
<b>UV- AND WEATHER RESISTANCE</b>	<b>EN ISO 16474-3:2013</b>	<b>PASS</b>
<b>RESISTANCE TO FIRE CLASS</b>	<b>EN13501</b>	<b>B, S1, D0</b>
<b>WATER VAPOUR TRANSMISSION</b>	<b>ASTM E96</b>	<b>SD &lt; 1.0</b>

-	On "cement Particle Board": both and without use of primer is tested; testing shows that primer is not needed, as 100% failure in substrate (means that adhesion is higher then substrate strength)
-	On "PIR insulation": 100% failure in substrate (means that adhesion is higher then substrate strength)
-	On "Wood fibre insulation board": both and without use of primer is tested; testing shows that primer is not needed, as 100% failure in substrate (means that adhesion is higher then substrate strength)
-	On "OSB3": also substrate failure
-	On "CLT wood": pull off strength of > 1 N/mm <sup>2</sup> (1,23 N/mm <sup>2</sup> )



## Conditioning Results

Standard	Substrate	Results	Acceptance Criteria
ICC_ES AC212, Section 4.2: Freeze/Thaw	Plywood	Pass	Surface changes as viewed by minimum 5 x magnification. (Cracking, Delamination, checking, etc.)
	Cement Paver	Pass	
	OSB	Pass	
ICC_ES AC212, Section 4.3: Water-Resistance	Plywood	Pass	No deleterious effects
	Cement Paver	Pass	
	OSB	Pass	
ICC_ES AC212, Section 4.5; Water-Penetration Testing	Plywood	Pass	There shall be no visible water penetration at sheathing joints, as viewed from the back of panel
	OSB	Pass	
ICC_ES AC212, Section 4.7.1; Restrained Environmental Conditioning	Plywood	Pass	There shall be no cracking of the water-resistive coating within the panel or joints.
	OSB	Pass	
ICC_ES AC212, Section 4.7.2; Restrained Environmental Conditioning	Plywood	Pass	There shall be no cracking of the water-resistive coating within the panel or joints.
	OSB	Pass	
ICC_ES AC212, Section 4.7.3; Restrained Environmental Conditioning	Plywood	Pass	There shall be no cracking of the water-resistive coating within the panel or joints.
	OSB	Pass	
ICC_ES AC212, Section 4.7.4; Restrained Environmental Conditioning	Plywood	Pass	There shall be no visible water penetration at sheathing joints, as viewed from the back of panel
	OSB	Pass	
ICC_ES AC212, Section 4.8; Weathering Test	Plywood	Pass	There shall be no cracking of the coating or bond failure. There shall be no water penetration on the exterior facing.
	Cement Paver	Pass	
	OSB	Pass	



Material Results

Standard	Variable	Product	Results		Acceptance Criteria
ICC_ES AC212, Section 4.1: Tensile Bond Testing	Test Set		Average Flatwise Tensile Strength (psi)		The flatwise tensile strength of each specimen shall be a minimum of 15 psi (105 kPa)
	Plywood	Passive Purple External		Pass	
	Plywood	Passive Purple External and External Brush		Pass	
	OSB	Passive Purple External		Pass	
	OSB	Passive Purple External and External Brush		Pass	
	Cement Mortar	Passive Purple External		Pass	
	Cement Mortar	Passive Purple External and External Brush		Pass	
ICC-ES, AC212, Section 4.4: Water Vapor Transmission	Water Method		Average (Perms)		Water Vapor Transmission shall be a minimum of 35 gsm. per 24 hours
		Passive Purple External		Pass	
		Passive Purple External Brush		Pass	

**SAFETY-** Consult the safety data sheet prior to application. Requested to wear eye protection, mouth mask, gloves and safety wear during spray application.

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 appropriate PPE according to the nature of the work
- 4.3. Before using a new/different product completely drain or bleed and flush lines or equipment from previous products
- 4.4. Clean up any spills in the area immediately to avoid slippery surface
- 4.5. Use the drip tray when possible
- 4.6. Do use the correct tip size and pressure suited to the person spraying the product and the product itself
- 4.7. Store in a safe place away from freezing temperatures/extreme temperatures.
- 4.8. Do recycle or clean and re-use empty tubs
- 4.9. Do mask any surfaces areas you do not want to get hit from potential overspray
- 4.10. Do always follow H&S guidelines
- 4.11. Do always know where on-site accident kit is kept in case of emergency
- 4.12. Do always read the product sheet for further instructions and guidance before application
- 4.13. Do seal tub back up after use
- 4.14. Do use a wet film gauge to verify the total consumption of 0,75 kg /m2 (0.625 microns) see product sheet for further details
- 4.15. Do mix before use

### DON'TS

- 4.16. Do not use under 5 degrees temperature expecting to drop below 5 degrees or freezing point within the next 24-48 hours
- 4.17. Do not use in the rain or when rain is expected within the next 24-48 hours
- 4.18. Do not mix/dilute with water or solvents
- 4.19. Do not consume
- 4.20. Do not use for anything else other than its intended purpose of a airtightness and vapour control barrier i.e. Do not use as a waterproofing/tanking
- 4.21. Do not mix with any other products
- 4.22. Do not spray LESS than the guided amount of at least 0.75kg/m2 or 0.625 microns verify with wet film gauge
- 4.23. Do not keep outside in cold temperature/always store in a safe place
- 4.24. Do not spray onto pile/fuzzy weather strip in sliding doors
- 4.25. Do not use as a protection for window (its permanent)
- 4.26. Do not fade out/overspray, always have a solid edged stop for peel ability
- 4.27. Do not differ from given product sheets and data

## 5.0 PASSIVE PURPLE BRUSH EXTERNAL GALLERY

### 5.1.Retrofit project examples:



5.1.2 Retrofit



5.1.3 Retrofit



5.1.4 Retrofit- Passive Purple installed insulation

### 5.2.Timber frame projects:



5.2.1. Timber frame

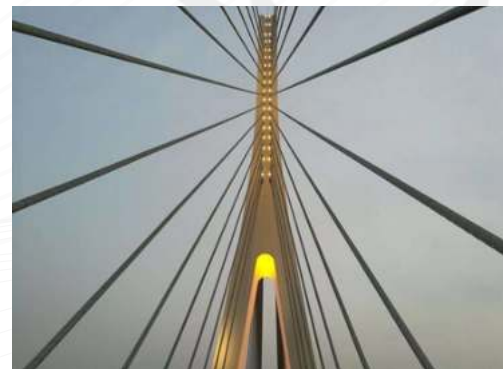


5.2.2. Timber frame

### 5.3. Big projects



5.3.1 External masonry work on bridge



5.3.2 External masonry work on bridge

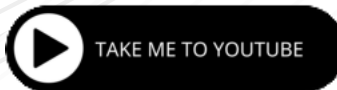
## 6.0. DATE OF THIS EDITION: 12/01/2025/26

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Passive Purple Retrofit is a product of Passive Purple External and all certification is that of Passive Purple External.







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