



## INSTALLATION GUIDE

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



## 1. Area of use & benefits:

Passive Purple External® dries to form a permanently airtight protective weatherproof watertight, vapour open, and breathable membrane for the following uses on a building:

- External façade protection
- Internal and external use
- Airtightness on retrofit builds
- Building fabric breathability
- Weatherproofing
- UV resistance
- Fire class B
- Vapour open

## 2. System:

Passive Purple External® is a liquid-applied protective membrane which is best applied to blockwork, OSB & MGO board, wood fibre, PIR, CP boards, concrete, masonry, plaster/render, engineered wooden boards, tapes, membranes, aluminum, steel, and PVC.

It is also a lightweight, liquid applied, advanced class B fire-retardant membrane and a world leader in a new generation of environmentally sourced and produced liquid membrane solutions.

Passive Purple External® has a class-Bs1 fire rating allowing it to self-extinguish when ignited giving little to no contribution to the reproduction of flames and a high contribution to building safety on all building types from small garden offices through to skyscrapers.



Timber frame install



Passivhaus standard build

## 3. Materials and tools commonly used:

- Stanley Knife, bag for waste.
- Masking tape.
- Vacuum cleaner (also for removing standing water).
- Non-shrink polyurethane foam and Passive Purple External®.
- Airless pump + accessories + extension cord + paintbrush.
- Empty buckets, water for cleaning of tools.
- Handheld paddle mixer.
- Products: Passive Purple External®, Passive Purple External Brush® and I.M Fleece Membrane Tape.
- Surface temperature meter, substrate must not be below 5°C.
- Personal safety equipment: Safety glasses, gloves, helmet, overalls, and masks.



St max 2 pro 595 HI boy



Passive Purple-External/Brush



I.M Fleece Membrane Tape

#### 4. Individual protection:

Consult the Materials Safety Data Sheet prior to application. Always work in well-ventilated areas. Avoid direct skin contact when product is in wet conditions. You are advised to wear eye protection, overalls, mouth mask, gloves, and safety wear during application.



Gloves



Face fit mask



Goggles



Spray suit

#### 5. Inspection and preparation:

**While Passive Purple External® is applied rapidly, the successful sealing depends on thorough preparation of the substrate. The following preparation instructions need to be followed.**

- Standing water, dust and free particles are removed with the vacuum cleaner. Passive Purple External® may be applied to humid surfaces.
- The ambient and substrate surface temperature must be above 5 degrees Celsius.
- Fill holes and gaps bigger than 2mm with Passive Purple External Brush® or if larger above 7mm occur, then treat with foam or mortar. When using polyurethane foam, cut off the excess after hardening.
- For joints where movements are expected during the lifetime of the construction, apply Passive Purple External Brush® over the joint which will then later be overcoated with Passive Purple External®.
- Apply Passive Purple External Brush® to connections such as in-between the wall and damp course or joints and penetrations like OSB/MGO/CP or blockwork.



Clean all areas



Timber frame install

## 6. Setting up the airless spray machine:

- Place airless spray device above pail with product.
- Prime machine.
- Pump wastewater into waste bucket until product is circulating.
- Build up pressure to 120 – 150 bar.
- Repeat for spray hose/gun until product is circulating.
- A commonly used tip is the 517 spray tip or above.
- After use, clean airless spray device with water, in the way same as set up.
- Clean filters.



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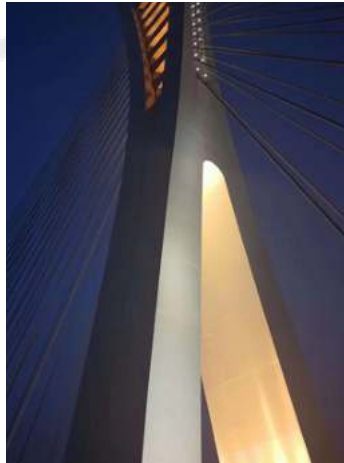
St max 2 pro 595 HI boy airless spray machine or similar in process

## 7. Application:

- Passive Purple External® is then applied on the exposed façade as a protective, weatherproof & breather membrane. Apply in two coats, second coat over the first coat when cured/tacky. (also for internal use)
- Total minimum consumption should be 0.75kg/m<sup>2</sup> or about 750 microns to be verified with a thickness gauge as described in paragraph 8 below (Wet film gauge).
- Apply using an airless spray machine, or alternatively a long-haired roller.
- During the drying process typically allow 24-48 hours to fully dry, (weather dependent).
- In case of using an airless spray machine for the application of Passive Purple® External spray at 30-60cm from the surface at a 90° angle on the surface, as to minimize overspray.
- Avoid (local) layer thickness of above 1500 micron for example in joints/openings in the surface which have not been prepared properly.
- Thickness is verified with a wet film thickness gauge, to ensure minimum total coverage of 750 micron. In general, when the substrate is not visible anymore, the coverage of min 750 micron is more than likely reached.
- Apply laps onto adjoining areas
- On porous blockwork- a medium/long piller roller is required to fully back roll paint into



Timber frame



External masonry work on bridge



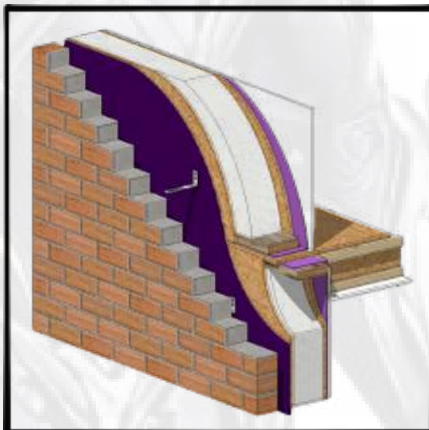
Timber frame



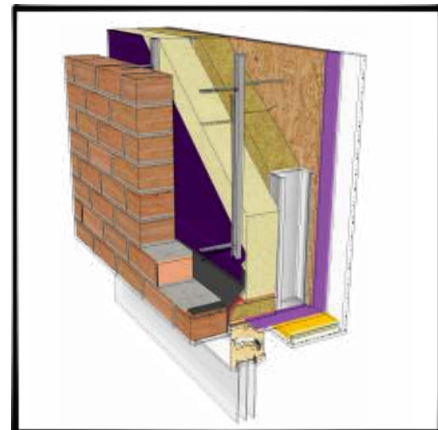
Timber frame



Blockwork



SIP brick cladding first floor



Steel frame wall- window head and sill (brick cladding)

## 8. Joining with other airtightness systems:

If an area to be sealed with Passive Purple External® needs to be joined with another membrane, ensure that the membrane is sealed according to the membrane system manufacturer's specifications, so there is no gap on the sides of the membrane onto which Passive Purple External® will be sprayed.

In case of doubt, consult the technical department of Intelligent Membranes®.

If an area to be sealed with Passive Purple External® needs to be joined with another area where airtightness is achieved with engineered wooden boards with taped seams, any gap between the two areas needs to be treated as outlined in paragraph 5. If the joint is made between concrete or masonry structures and wooden framed walls or roofs that are subject to shrinking and other movements butyl tape or Airtight Fleece Tape should be provided before final application of Passive Purple External®.

## 9. Quality Control:

- Check visually to ensure complete coverage; If needed, apply an additional coat
- Thickness is verified with a wet film thickness gauge for each layer, to ensure minimum total coverage of 750 microns
- If required use wet film gauge to:
- Identify level and smooth patches of substrate
- Select the appropriate side of the thickness gauge for thickness around 750 microns



- Press the appropriate side of the gauge into the wet film immediately after the application.
- Remove gauge and inspect the underside of the comb fingers. The last wetted finger indicates the wet film thickness value printed by this finger.
- Repeat the measurement's to make a reasonable number of spot checks. As a rule of thumb one measurement should be taken for each 5m<sup>2</sup> of coating.

## 10. Dont's:

- Do not apply Passive Purple External<sup>®</sup> on a polluted or dusty substrate.
- Do not dilute Passive Purple External<sup>®</sup> with water or solvents; avoid contact with any type of liquid during drying.
- Do not leave the lid off the container for long periods, please re-seal immediately after use.
- Do not use a heat source at close range to aid drying.
- In case of damage to the Passive Purple External<sup>®</sup> coating after drying, simply restore by cleaning the surface of the coating and re-applying an extra layer which is easily done with the brush.
- Do not apply Passive Purple External<sup>®</sup> whilst the substrate is under pressure: pressure testing must only be carried out once Passive Purple External<sup>®</sup> is fully cured.

## 11. Storage:

Store all containers in a dry frost free environment between 5°C and 35°C, avoid direct sunlight or contact with a heat source.

Seal part used containers by pushing down firmly in the center of the lid when closing, ensure lid is closed tightly.

Do not use product from damaged or broken containers.

Shelf life: product will keep for 24 months from date of manufacture if kept according to these instructions in unopened containers. See batch number for date of production: ddmmyxx (dd:day/mm:month/y:year/xx:productcode).

## 12. Disclaimer:

Passive Purple X<sup>®</sup> and Passive Purple Retrofit<sup>®</sup> are product names of Passive Purple External<sup>®</sup> and all certifications are that of Passive Purple External<sup>®</sup>.

**Precautions:**

**Consult the Materials Safety Data Sheet and the material compatibility sheet prior to application. Always work in well-ventilated areas. Avoid direct skin contact when product is in wet condition. You are advised to wear eye protection, face mask, gloves, and safety wear during application.**

**Further advice:**

**This advice is based on the experience of the Intelligent Membranes® for further information, please contact our head office. Product sheets, safety data sheets and independent test reports are available on request.**

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