

SMARTVAP 100 *user guide*

Preparation

ProctorPassive SmartVap 100 (SmartVap) is reinforced by a spun-bonded polyolefin, however, it is still important to avoid punctures, minimise penetrations and avoid excess bulging if supporting the weight of insulation.

To avoid penetrating the air tight layer, remove any sharp protrusions from the framing and complete the installation of services such as wiring, ducting, plumbing and insulation prior to installing SmartVap.

Printed side inwards

SmartVap will function as an air barrier installed facing either direction. However, for ease of installation when unrolling the membrane and for intended functionality, SmartVap is to be installed with the printed side facing towards the interior.

Installation Recommendations

SmartVap should be installed in accordance with AS/NZS 4200.2 Pliable Building Membranes and Underlays, Part 2 Installation requirements.

(1) Install horizontally to the interior of stud walls, from bottom wall plate upwards, leaving a minimum 30mm loose at edges and the floor to allow for continuity of the air tight layer. To assist in aligning SmartVap, mark each stud at 1.47m from the floor level.

Staple fix to timber frames at each stud within 50mm of the top edge of the SmartVap.

(2) Smooth the SmartVap taut down the centre stud avoiding wrinkles. Staple from the floor plate upwards at maximum 150mm intervals.

(3) Work outwards from the centre stud, repeating stage 2 on every stud.

(4) Overlap the next run of SmartVap by 100mm, aligning the printed markings and fix as per stage 1 to 3. When forming a junction with the ceiling, ensure that a minimum 30mm is left loose to form an overlap as required to allow for continuity of the air tight layer.

When fixing to steel or aluminium, use tek screws with a minimum 20mm diameter or through battens. Use double sided ProctorPassive Duo Tape if temporarily fixing to steel frames. Stainless steel fixings are recommended in harsh or corrosive environments.

Although SmartVap is usually applied to the interior of framing when construction is well advanced, if likely to be exposed to high winds prior to installation of cladding and interior linings, users should determine if fixing details are appropriate.

Overlaps & Tapes

Once the entire area is lined with SmartVap, seal all overlaps with DriStud Cool Tape pressing firmly using a squeegee or roller using the 30mm printed lines as a guide for even application.

Overlaps running the 1.5m width of the material, should be staggered and overlap over a solid element such as a stud and taped with DriStud Cool Tape.

Penetrations

At penetrations, such as vent pipes, it is recommended to use a ProctorPassive Gasket or DriStud Cool Tape with an additional piece of SmartVap fixed around the penetration and taped into position. At penetrations, the movement of pipes and cables etc., should be restricted.

To reduce the passage of vapour by air leakage, attention to detail is most important. Where SmartVap is to function as a continuous air and vapour tight layer, any unsealed penetrations through the membrane should be made through a durable vapour and air tight washer, butyl tape, EPDM foam, gasket, or sealant.

To form an airtight bond at joints with floors, walls, or other air tight materials use the range of ProctorPassive accessories and allow extra material for any expansion joints. When bonding to uneven or difficult to adhere surfaces such as masonry walls or floors, seal the SmartVap to a 5mm bead of a suitable mastic sealant.

Durability

Ensure that SmartVap is **not left exposed to UV for any longer than 1 month**. SmartVap is not suitable for applications where it will be exposed long term, even to indirect UV.

Although SmartVap is watertight and can be used as temporary protection during construction, it must not be used as a primary waterproofing membrane.

Approval should be sought prior to using SmartVap in applications other than as a variable vapour diffusion retarder and air retarder.

The product may be damaged by careless handling, high winds or vandalism, and should not be left uncovered for longer than is absolutely necessary. Any damaged areas should be replaced prior to completion of the internal lining installation.

Please contact DriStud to determine if there is a more suitable product for these applications.

Condensation Risk

There are a large number of factors that need to be considered in assessing and managing condensation risk. Such factors include the local climate, building use, the position, thickness and type of bulk insulation, the position and integrity of vapour and air retarders, and the degree and location of mechanical or passive ventilation both within the building fabric and the interior. It is highly recommended that designers run a condensation risk analysis.

For further information on the risks of condensation please seek advice from your relevant consultants. PGA can assist with condensation risk analysis.

We do not recommend that SmartVap is used as a vapour retarder in applications with constant high humidity such as indoor swimming pools where the membrane is required to function as a vapour barrier.

Operational Health and Safety

All proper safety measures should be taken during installation of SmartVap. All relevant OH&S and statutory regulations must be followed. SmartVap does not have an anti-slip coating so will be slippery when wet, particularly on the smooth side. Carelessly discarded packaging and tape release liners also present a slip hazard.

SmartVap is not designed for fall prevention and is not intended to support a person's weight, or to be walked upon unless adequately supported from beneath.

Laying lightweight membranes in high wind conditions is difficult and appropriate precautions should be taken during installation.

There is a risk that fire can spread if the material is accidentally ignited during maintenance works, for example by a plumber's torch. Take care during building and maintenance to avoid the material being ignited.

ROLL SPECIFICATION

ProctorPassive

SmartVap 100

Air Barrier with variable vapour diffusion resistance

Width:	1.5m
Length:	30m
Area:	45m ²
Colour:	White printed in green & blue

Classifications in accordance with AS/NZS 4200.1

DUTY:	Light*
EMITTANCE:	Non-reflective
WATER BARRIER:	High
VAPOUR BARRIER:	Low**
FLAMMABILITY INDEX:	Low
VAPOUR RESISTANCE:	1.83 MNs/g**

* ProctorPassive SmartVap 100 is classified as light duty in accordance with the value specified for bursting strength.

** The vapour barrier classification and value for vapour resistance is calculated from testing in accordance with Procedure B of ASTM E96 — wet cup test in a 23°C and 50% RH environment. However, vapour diffusion resistance is designed to be variable.

Note that this material should not be used as a vapour permeable membrane or where a "breather" or "vapour permeable" membrane / sarking has been specified.

The product is not intended to be used as an exterior sarking membrane or roof underlay.

A product identifier code is printed on the underside of the membrane at 1m intervals. This product has been manufactured in conformity with EN 13984. Quality control checks on the finished product include:

Weight	Tensile strength and elongation
Tear	Water resistance
Dimensional stability	Water vapour transmission
Reaction to fire	Properties after artificial ageing

Delivery, Storage and Site Handling Requirements

Rolls of SmartVap are delivered to site, individually wrapped in a transparent polyethylene sleeve. This SmartVap User Guide is included with each roll. Rolls must be stored flat or upright on a clean, dry and level surface and kept under cover.

Disclaimer

SmartVap performs to specification in normal building applications when installed in accordance with this user guide. The information herein is supplied in good faith and to the best of our knowledge was accurate at the time of publication.

Users are advised to make their own determination as to the suitability of this information in relation to their particular purpose and specific requirements.

TECHNICAL ADVICE

DriStud— a division of TCL Hunt can assist with installation details, review drawings and give specialist advice on the correct use of products.

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