BBA APPROVAL INSPECTION TESTING CERTIFICATION
CERTIFICATE 23/6867

UK CA CE

APEX

Air & Vapour Open Permeable Membrane

PERMAVENT

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INNOVATIVE CONSTRUCTION PRODUCTS

Permavent APEX is a 3 layer air and vapour open permeable membrane, providing unique condensation control which eliminates the need for low or high level ventilation. APEX also provides a secondary barrier to water ingress.

Permavent APEX exceeds the requirements of BS 5534:2014+A2:2018 Code of practice for slating and tiling for pitched roofs.
An integrated double tape system allows APEX to be installed in all UK wind zones.

An untaped option is also available.

PERMAVENT APEX

Air & Vapour Open Permeable Membrane

- ✓ Air open and vapour permeable
- ✓ Integrated double tape system (25% less membrane usage)
- ✓ Eliminates the need for additional ventilation
- ✓ For use on any type of roofing/walling applications

Why use an Air Open Membrane?

Air and vapour open membranes provide increased air movement in the roofspace in combination with vapour diffusion. The air permeability reduces the risk of condensation enhancing the overall performance of the building. Condensation isn't normally a building fault, it can occur in any new home because building materials such as mortar and plaster contain a lot of moisture so water vapour is formed as the materials dry out when the home is lived in and heated. This is a slow process that can take some time to complete.

Modern homes are increasingly being built to reduce energy consumption and heat loss. By definition, they also reduce water vapour escaping which, can increase the risk of condensation.

The high air permeability of Permavent APEX with superior vapour permeability diminishes the risk of condensation within the roof space.

Building regulations

NHBC provide their own technical standards, in parallel with national building regulations and follow the guidance from BS 5250:2021 "Management of moisture in Buildings – Code of practice". Clause (7.2) of NHBC standards confirms where no ventilation is proposed to the cold roof void with air permeable outer roof coverings, the roofing underlay (Type LR) must be a low water vapour resistance and air permeable underlay and hold current certification for use in a non-ventilated application, from an appropriate independent technical approvals body, acceptable to NHBC. Such membranes should have a water vapour resistance, sd, not exceeding 0.05 m (0.25 MN·s/g) and a minimum air permeability of 34m^3/m^2.h at 50 Pa, or more.

Permavent APEX can be specified without the need for high or low ventilation when installing roof underlays. Both air and vapour permeable and third party accredited, Permavent APEX can be installed in any non-ventilated roofing applications.

Fully Air Permeable

Permavent APEX air permeability allows moisture to escape through the roof via the movement of the air, which eliminates interstitial condensation in pitched roofs. This can be particularly important during the drying out period in new build applications.

Vapour Permeable

Permavent APEX vapour permeability helps to reduce the condensation within the roof structure, whilst protecting it from the rain and wind outside until primary barriers are installed. Permavent APEX has an Sd value 0.01m.

Water Resistance

Permavent APEX is water resistant with a W1 rating (EN 13859).

BBA Certification

Permavent APEX has full BBA Certification for use in both cold and warm non ventilated roofs.

Compliant with BS 5534:2014+A2:2018 Code of Practice

Permavent APEX is exceeds the requirements of BS 5534:2014+A2:2018 Code of Practice and our taped version can be used in all UK wind zones without the need for high and low level ventilation.

Integrated Double Tape System

Permavent APEX is available with a unique intergated double tape system. This ensures that the laps of the membrane are restrained in any weather condition using a 100mm head lap and exceed the requirements of BS 5534:2014+A2:2018 Code of Practice standard. This can reduce membrane usage by up to 25%.

Declared Performance

PROPERTY	STANDARD	RESULT
Weight, g/m²	EN 1849-2	180
Reaction to fire, class	EN 11925-2	E
Water vapour transmission Sd	EN 12572	0.01
Air permeability, m³/m².h at 50Pa	EN 12114	>34
Water tightness, class	EN 1928	W1
Maximum tensile force (MD), N/50mm	EN 12311-1	330
Maximum tensile force (CD), N/50mm	EN 12311-1	270
Elongation at max. tensile force (MD), %	EN 12311-1	56
Elongation at max. tensile force (CD), %	EN 12311-1	68
Resistance to tearing MD (nail shank), N	EN 12310-1	210
Resistance to tearing CD (nail shank), N	EN 123101-1	210

Wind Uplift Resistance

BATTEN GAUGE	WIND UPLIFT PRESSURE (Pa)	UK WIND ZONES
≤345mm (integrated tape)	2351	1 - 5
≤250mm (battened lap)	2745	1 - 5
≤345mm (battened lap)	1177	1 - 3

What UK wind zones is Permavent APEX suitable for?

Permavent APEX is suitable for use in zones 1-5 (taped lap).

What is the Air Permeability value for APEX?

Permavent APEX exceeds NHBC requirements for air permeability >34$m^3/m^2.h$ at 50Pa.

Is APEX BBA approved?

Permavent APEX has BBA certification for both cold and warm roof applications and is independently tested by UKAS accredited testing laboratory.

Can I use Permavent APEX on a cold/warm roof application?

Yes. For more detailed roofs please speak with our technical team.

Can Permavent APEX be left exposed before roof slates/tiles are installed?

Permavent APEX is UV stable for up to 3 months and provides W1 head of water resistance. We always recommend exposure is kept to a minimum.

Do I need to install an AVCL when using Permavent APEX?

An AVCL is not required on a cold pitched roof, non-ventilated application.

What is the minimum recommended lap for Permavent APEX?

Permavent APEX has been tested and approved for installation with 100mm membrane lap when using our double integrated tape version. 150mm lap is required on any untaped version.

What is the drying out period?

It can occur in any new home because building materials, such as mortar and plaster, contain a lot of moisture. Water vapour is formed as the materials dry out when the home is lived in and heated. This is a slow process that can take several months to complete. The high air permeability of Permavent APEX with superior vapour permeability reduces the risk of condensation within the roof space during the drying out period.

Is Permavent APEX cost effective?

Permavent Apex Taped & Un-Taped products are extremely cost-effective. Permavent APEX taped delivers our industry leading double integrated tape system providing an extremely cost effective solution. The 100mm lap on the taped solution as oppose to 150mm lap reduces membrane wastage, combined with removing the requirement for expensive additional tile battens.

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