

Technical Datasheet ATAL PREMSIL GMA

Summary

Atal Premsil GMA is an advanced waterproof membrane capable of resisting the passage of methane gas. The membrane is manufactured from an aluminium, and cross-orientated HDPE film laminated to a layer of rubber modified bitumen adhesive. Independent tests show that this advanced backing film and adhesive layer provides excellent technical performance for the suppression of methane, radon and other common ground gases. The membrane should be covered as soon as possible after installation with protective blinding or Atal Flo Board 4e.

Use Atal Premsil GMA for the following applications:

- External tanking of underground structures
- Car parks and Retaining Walls
- Subways and Lift Shafts

Advantages

- Atal Independent certification for the suppression of methane and radon gas
- Excellent overlap integrity due to bitumen joint
- Factory controlled thickness
- Rapid and easy application
- Flexible and accommodating giving an excellent bond to the substrate
- Non-hazardous and resistant to dilute acids and alkalis
- High-performance protection against groundwater and soluble salts such as sulphates and chlorides
- Capable of resisting a 6 metre head of water when fully supported Usages

Storage

The membrane rolls must be stacked on end and stored in dry, well-ventilated buildings, out of direct sunlight or other significant sources of heat. Storage conditions should be adjusted before application to bring the temperature of the rolls to within the relevant specified application range. Position the roll at the top of the vertical surface and unwind about one metre.

Instructions for use

1. Prepare the subgrade by removing all debonding causing substances, dust, debris, oil, and laitance.
2. Ensure the substrate is dry.
3. Install 50mm x 50mm fillets of Atal Asocrete M30 into 90 internal angles.



4. Apply Atal Premsil primer to any masonry, concrete or steel substrates and allow to dry.



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5. Start by securing the end of the membrane at the top of the vertical surface.
6. It may also be necessary to mechanically fix the membrane at the top. Do this by either "chasing" the top edge into the substrate or by nailing a wooden batten across its width.
7. Position the roll at the top of the vertical surface and unwind about one metre.
8. Peel back the first 500mm of release paper, fold it down, then press the exposed self adhesive compound onto the previously primed surface to achieve a strong bond.



9. Slowly unwind and lower the roll of membrane towards the ground until the sheet is hanging vertically against the surface.
10. Take hold of the release paper that was folded back in both hands on either side of the membrane and slowly but firmly pull it downwards. Apply an even tension across the roll.
11. As the release paper is peeled away, the self adhesive compound should be pressed firmly against the surface working from the centre of the membrane outwards to avoid trapping air.
12. Apply Premsil 100; as the release paper is peeled away, the self-adhesive compound should be pressed firmly against the surface, working from the centre of the membrane outwards to avoid trapping air.
13. Ensure overlaps are at 50mm at side laps and 100mm in end laps.
14. Avoid wrinkles, folds and uneven laps.

15. Stagger each membrane piece by 200mm to ensure four sheets of membrane do not lap in one spot.
16. Cover the membrane with a protection board as soon as possible. Do not fix through the membrane. Adhere protection onto the membrane using Atal DS Butyl Tape and backfill as soon as possible.

Membrane Validation

The installation of the ground gas protection system should be validated as per CIRIA C735 to comply with Table 7 of BS 8485:2022.

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PROPERTY	TEST METHOD	UNITS	TOLERANCE	RESULT
Water tightness to liquid water	EN 1928	-	-	Pass
Resistance to Static Load	EN 12730	kg		20kg Pass
Tensile Properties, Maximum Tensile Stress CD	EN 12311-2	N/mm ²		≥ 2
Tensile Properties, Maximum Tensile Stress MD	EN 12311-3	N/mm ²		≥ 2
Tensile Properties, Elongation at Break MD	EN 12311-4	%		≥ 120
Tensile Properties, Elongation at Break CD	EN 12311-5	%		≥ 120
Durability of Watertightness against ageing	EN 1847 Method A 60 KPa	-		Pass
Durability of Watertightness against chemicals	EN 1847 Method A 60 KPa	-		Pass
Resistance to Impact	EN 12691	mm		≥ 500
Resistance to tear (Nail Shank) CD	EN 12310-1	N		≥ 100
Resistance to tear (Nail Shank) MD	EN 12310-2	N		≥ 100
Reaction to Fire	EN 13501	Euro Class		Class F
Joint Strength	EN 12317-2	N		≥ 30
Water Vapour Transmission (Density Flow rate)	EN 1931	g/(day•m ²)		0.013
Water Vapour Transmission (Resistance factor, μ)	EN 1931	μ		2380000
Length	EN 1848-2	m	-0% to +5%	28.6
Width	EN 1848-3	m	-5% to +5%	1.05
Thickness	EN 1849-4	mm	-5% to +10%	1
Mass	EN 1849-5	g/m ²	-10% to +10%	1100
Methane GTR	ISO 15105-1	ml/m ² .day		<10
Carbon Dioxide GTR	ISO 15105-1	ml/m ² .day		<10
Radon Diffusion		m ² /s		5.0 X 10 ⁻¹⁴
Roll Weight		kg		33

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Atal offers nationwide and comprehensive technical support for all types of sites and construction projects.

Our team of CSSW qualified technical managers, technical advisors and site support operatives will be happy to help with our [free design service](#), free site visits, and free product training.

Atal is proud to support your project from the beginning stages, right up to the end.

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For any enquiries, or help with your project requiring structural waterproofing, contact us via phone or email below.

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