

PRODUCT DATA SHEET

Defend Alu V 3 mm

Bitumen air & vapour control layer, reinforced with fiberglass and aluminium

PRODUCT DESCRIPTION

Defend Alu V 3 mm is an APP modified bituminous Air and Vapour Control layer, reinforced with polyester stabilised with glassfibre, combined with aluminium. The top surface is coated with a patented talc treatment, the underside of the product has a burn-off film for torch-application.

USES

The Product is used as an:

- Air and Vapour Control layer

Please note:

- The Product is not suitable to be permanently exposed to UV radiation.

PRODUCT INFORMATION

Chemical Base	Composition Reinforcing material	APP modified bitumen Stabilised Polyester + Aluminium
Packaging	roll/pallet	
Appearance / Colour	Top surface Bottom surface	Talc Polyethylene film
Shelf Life	24 months from date of production	
Storage Conditions	Product must be stored in original unopened and undamaged sealed packaging in dry conditions, away from the elements and at temperatures between +5 °C and +30 °C. Store in a vertical position. Do not stack pallets of the rolls on top of each other, or under pallets of any other materials during transport or storage. Always refer to packaging.	
Dimensions	1 x 8m roll	
Thickness	Thickness	3.0 mm ± 0.2 mm (EN 1849-1)
Weight	2kg/m ² ± 2%	

CHARACTERISTICS / ADVANTAGES

- Top surface finish: Talc
- Torch applied
- Air and Vapour Control Layer

APPROVALS / STANDARDS

- CE marking and declaration of performance based on EN 13970:2004/A1:2006 Flexible sheets for water-proofing — Bitumen water vapor control layers — Definitions and characteristics

TECHNICAL INFORMATION

Reaction to Fire	Class E	(EN 13501-1)	
Permeability to Water Vapour	$\mu = 1.500.000 - 300.000$	(EN 1931)	
Water Tightness	Method B: 24 hours at 60 kPa Pass	(EN 1928)	
Flexibility at low temperature	-10 °C	(EN 1109)	
Maximum tensile force	Longitudinal (MD)	450 N/50mm \pm 90 N/50mm	(EN 12311-1)
	Transversal (CMD)	350 N/50mm \pm 70 N/50mm	
Elongation at maximum tensile force	Longitudinal (MD)	3 \pm 15 %	(EN 12311-1)
	Transversal (CMD)	3 \pm 15%	

APPLICATION INFORMATION

Ambient Air Temperature	Minimum	+5 °C
	Maximum	+40 °C
Relative Air Humidity	Maximum	80 %
Substrate Temperature	Minimum	+5 °C
	Maximum	+40 °C

VALUE BASE

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

ECOLOGY, HEALTH AND SAFETY

This product is an article as defined in article 3 of regulation (EC) No 1907/2006 (REACH). It contains no substances which are intended to be released from the article under normal or reasonably foreseeable conditions of use. A safety data sheet following article 31 of the same regulation is not needed to bring the product to the market, to transport or to use it. For safe use follow the instructions given in the product data sheet. Based on our current knowledge, this product does not contain SVHC (substances of very high concern) as listed in Annex XIV of the REACH regulation or on the candidate list published by the European Chemicals Agency in concentrations above 0,1 % (w/w).

APPLICATION INSTRUCTIONS

SYSTEM DESIGN

Consider the following when designing the roof system:

- The supporting structure must be of sufficient structural strength to support all new and existing layers of the roof build-up.
- The complete roof system must be designed to withstand and be secured against wind uplift loadings.
- The wind uplift resistance of the adhered roofing assembly is limited by the adhesion strength of the product to the substrate.

SUBSTRATE CONDITION

The substrate surface must be uniform, firm, smooth and free of any sharp protrusion or burrs, clean, dry, free of grease, laitance, oil, dust and loosely adhering particles.

SUBSTRATE PREPARATION

PRIMING

Primer selection

- Apply the appropriate Sika® primer to the surface of the area to be treated. .Note: Refer to the individual Product Data Sheet of the primer for the correct coverage rates. .
- Allow the primer to thoroughly dry before membrane installation
- A consistent 5-10mm bleed of bitumen is recommended at the side and headlaps to ensure the product has been properly bonded. .

IMPORTANT

Unrolling at low temperatures

- At low temperatures, the membrane becomes less flexible. Be careful when unrolling to avoid damaging the membrane. If this happens, membranes may be stored indoors or in sheltered areas until the membrane is needed.

Damage through footwear

- Footwear with spikes or sharp protrusions may puncture the membrane.
- Use footwear with a flat profile when walking over the membrane.

Damage through overheating

- The polyester reinforcement melts at +260 °C. If it is damaged through overheating, the membrane becomes unusable.
- Keep moving the flame while torching to avoid overheating the membrane.

Reduced adhesion through insufficient heating

- Make sure to heat the membrane sufficiently throughout. If it is not sufficiently heated, the adhesion to the substrate, between layers or on the overlaps will be reduced.

Tackiness at high temperatures

- Note: When laying the membrane at high temperatures, the membrane may be more difficult to install. The product may become easily marked, so care must be taken.

ALIGNMENT

Unroll the membrane and align. Each roll must be laid parallel to the next and must be staggered by at least 500mm to avoid coinciding joints in any subsequent layers. The end-to-end overlaps must always be alternate, never arranged along a single line. Always start at the lowest point of the roof.

Angle Fillets are mandatory at all 90° angles, including sumps, gutters and upstands.

MEMBRANE

OVERLAPS

The side lap is the joint that runs the length of the roll and the end/head lap is the joint along the shorter side of the roll. At the end/head lap, a corner of the membrane measuring 100mm per side must be cut off at an angle of 45° to avoid excessive build up of membrane. Always refer to the individual Product Data Sheet in order to verify the correct size of the side/end laps. Side laps should be no less than 75mm and end laps, no less than 150mm. All defined selvages must be covered.

TORCHING

Use a gas torch to heat the substrate and the backing film on the underside of membrane. When the backing film starts to melt, the membrane is ready to be rolled. .

Overheating can damage the reinforcement, causing retraction, undulations, curling or, in the most serious cases, puncture. Insufficient heating, on the other hand, can cause insufficient adhesion to substrate or subsequent layers.

Membranes can be installed to upstands and changes in level, however care must be taken in all instances, and must be terminated in a suitable way. When applying the products to roof pitches greater than 10 degrees, additional restraint is required. Counter flashings must always be used on upstands. Counter flashings must be of appropriate type, fixing and sealed properly. For upstands where no chase is possible (such as smooth concrete for example), a termination bar must be used.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

SIKA LIMITED

Watchmead
Welwyn Garden City
Hertfordshire, AL7 1BQ
Tel: 01707 394444
Web: www.sika.co.uk
Twitter: @SikaLimited



Product Data Sheet

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