

ALUTRIX®

Installation Instructions
ALUTRIX®600
ALUTRIX®FR

ALUTRIX[®]600 ALUTRIX[®]FR



FOREWORD

This publication is designed to assist the contractor when working with ALUTRIX[®] self-adhesive vapour barriers. The information contained within this guide is intended to provide a basis for planning material application and installing the ALUTRIX[®] membranes.

The following information should in no way be seen as a reference book for installers who have not yet been properly trained. Experience tells us that, in addition to our practical training, it is nevertheless always necessary to have up-to-date technical information. Contractors are responsible for ensuring that they are in possession of up-to-date technical information. Local codes of practice and regulations applicable to the country, in which the products are being installed, should be complied with at all times.

The installation details have been carefully collated based on current knowledge and PDT cannot accept responsibility for any omissions.

For further detailing information and application advice on individual projects, please consult with PDT technical department.

The information in this publication is based on our experience and test results and is correct to the best of our knowledge and belief, at the time of printing. No claims for compensation may be derived from it. We reserve the right to make changes in accordance with our policy of constantly seeking technical advancement and ever-higher standards of quality.

October, 2011



CONTENTS

	PAGE
1. Product overview and material description	6
1.1 General properties ALUTRIX® 600 and ALUTRIX® FR	6
1.2 Special features ALUTRIX® FR	7
1.3 System accessories: PDT FG 35 and FG 60 primer	7
1.4 System accessories: PDT G500 cleaner	7
2. Substrate criteria	8
3. Installation instructions	9
4. Vertical Junctions	10
5. Cleaning ALUTRIX® laps with PDT G500 cleaner	10
6. Adhering insulation to ALUTRIX®	11
7. ALUTRIX® as a temporary waterproof seal	11
8. Storage of ALUTRIX®	11
9. Material properties & physical values	12
10. Detail diagrams	14
10.1 Internal corners	14
10.2 External corners	14
10.3 Pipe penetration	15
10.4 Cross lap T- Junctions	15

1. PRODUCT OVERVIEW AND MATERIAL DESCRIPTION

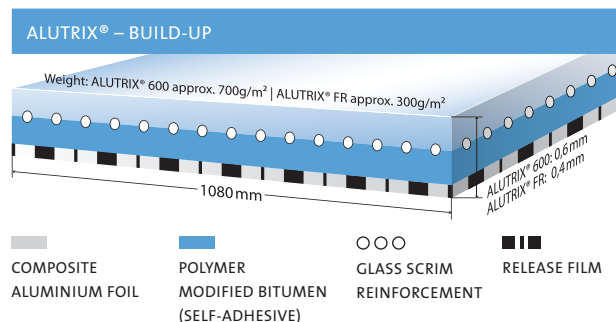
ALUTRIX® self-adhesive, high resistance vapour barriers are used in a wide variety of applications in the building industry. They are suitable for all internal conditions, including high humidity. Their very high vapour resistance is sufficient to accommodate extreme internal conditions such as buildings containing wet industrial processes, breweries, swimming pools, sports halls, kitchens and bathrooms etc.

They consist of a reinforced composite aluminium foil with a tenacious self-adhesive backing and removable release film.

1.1 General properties

ALUTRIX® 600 and ALUTRIX® FR

- / ALUTRIX® 600 and ALUTRIX® FR are self-adhesive, cold-applied aluminium vapour barriers.
- / ALUTRIX® 600 and ALUTRIX® FR have a standard roll size of 40 m long x 1.08 m wide.
- / Both vapour barriers have a very high tear resistance and can withstand foot trafficking on profiled metal decking, without puncturing.
- / ALUTRIX® vapour barriers create an air-tight and vapour-tight seal (sd-value > 1,500 m).
- / ALUTRIX® 600 and ALUTRIX® FR can be bonded with complete confidence at ambient temperatures of + 5°C.



1.2 Special features ALUTRIX® FR

- / Calorific value of $\leq 10,500$ kJ/m², complies fully with fire protection requirements for reduced fire load vapour barriers according to DIN 18234 and national regulations.
- / Passes FM Global test conditions and complies with all requirements of FM Approval Standard Class No. 4470.

1.3 System accessories: PDT FG 35 and FG 60 primer

PDT FG 35 primer is a quick drying, ready-to-use adhesive primer, consisting of synthetic rubber and resins mixed with an organic, halogen-free solvent. PDT FG 35 primer is applied in combination with the ALUTRIX® vapour barriers to a wide range of substrates.

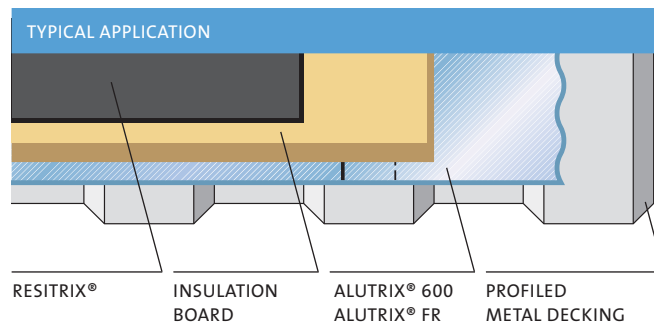
PDT FG 60 primer is a totally solvent-free, ready-to-use primer for the self-adhesive ALUTRIX® vapour barriers which provides excellent adhesion to most common substrates, whilst giving comparatively low consumption per square metre.

Please comply with health & safety datasheets and observe safety guidelines shown on the tins.

1.4 System accessories: PDT G500 cleaner

PDT G500 cleaner is a powerful degreasing agent for metal surfaces and for general cleaning of lightly soiled substrates.

Please comply with health & safety datasheets and observe safety guidelines shown on the tins.



2. SUBSTRATE CRITERIA

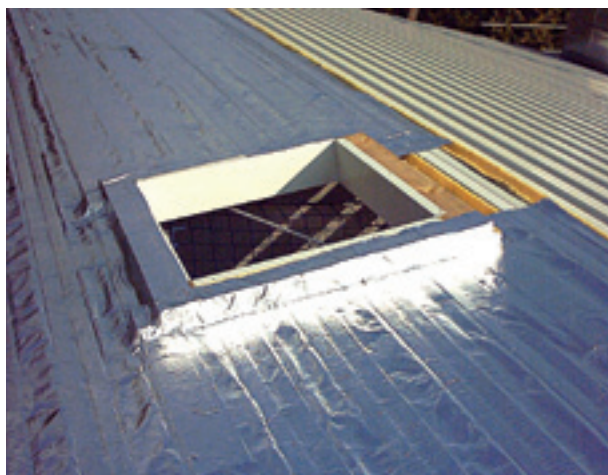
Substrates must be sound, dry, flat, clean and free from dust and grease.

Substrate type		ALUTRIX® 600	ALUTRIX® FR		FG 35	FG 35 Coverage / Consumption	FG 60	FG 60 Coverage / Consumption
Installation Information for surface adhesion(*)	Metal decking:							
	/ Galvanized or uncoated	yes	yes		yes	50% / 100 g/m ²	yes	50% / 70 g/m ²
	/ Plastic-coated	yes	yes		no	---	no	---
	Plywood/ OSB (timber-based products) (**)	yes	yes		yes	50% / 100 g/m ²	yes	50% / 70 g/m ²
	Concrete	yes***)	no		yes	50% / 100 g/m ²	yes	50% / 70 g/m ²
	Bituminous substrates	yes	yes		yes	50% / 100 g/m ²	yes	50% / 70 g/m ²

(*) For mechanically fixed or ballasted roofing systems, priming the roof surface is not usually required.

(**) On panels more than 500mm wide where movement may be anticipated, install non-adhesive tape strips over the board joints.

(***) Only on dry, smooth and clean concrete materials. Mechanical damage or perforation by exposed aggregate must be avoided.



3. INSTALLATION INSTRUCTIONS

- / Roll the ALUTRIX® out flat, without creases
- / Align and set the position
- / Overlaps must be at least 50 mm
- / Remove the release film
- / Press the sheet down uniformly using, for example, a wide broom
- / All laps must be rolled down using a hand roller
- / On profiled decking, lay the ALUTRIX® parallel to the deck, with side laps fully supported on the corrugations
- / On profiled decking, end-laps in the ALUTRIX® should be laid over an additional strip of ALUTRIX® or flat metal plate, approximately 200 mm wide, for support
- / Formation of cross-lap T-junctions: Overlapping corners should be mitred (see Diagram 10.4)

4. VERTICAL JUNCTIONS

- / All vertical surfaces must be primed fully
- / Vertical areas of ALUTRIX®, including flashings, should be rolled down firmly using a hand roller.
- / At roof penetrations and upstand details, the ALUTRIX® should be applied to a sufficiently high level to enable encapsulation of the insulation board.

5. CLEANING ALUTRIX® LAPS WITH PDT G500 CLEANER

- / On laps which are not closed whilst the ALUTRIX® is being installed (e.g. due to the formation of details or overnight work stoppage), the aluminium foil should be wiped clean with PDT G 500 cleaner and allowed to dry, to remove dust and dirt before closing the lap.
- / Subsequent junctions onto the ALUTRIX® 600 / ALUTRIX® FR are always possible, after cleaning as above.



6. ADHERING INSULATION TO ALUTRIX®

- / Bonding insulation or other materials onto the ALUTRIX® vapour barriers can be carried out using standard polyurethane insulation adhesive or hot bitumen.
- / Please comply with the corresponding manufacturer's instructions.

7. ALUTRIX® AS A TEMPORARY WATERPROOF SEAL

- / When correctly applied to the structure, ALUTRIX® 600/ ALUTRIX® FR vapour barriers can act as a temporary waterproof seal until the insulation and waterproofing system are installed (maximum 5 weeks). The substrate should have a 2% fall (minimum) to facilitate rainwater run-off.
- / If installing the ALUTRIX® below 10°C, laps should be pre-heated using electrical hot-air guns before being rolled down (approx. 5 metres/ minute at a temperature setting of 300°C).
- / This should not be regarded as a permanent waterproof seal!

8. STORAGE OF ALUTRIX®

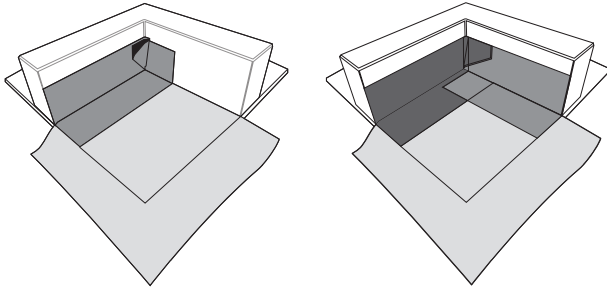
- / In their original packed condition, the rolls have a shelf-life of 12 months. They should be stored upright in a cool, dry environment.
- / ALUTRIX® vapour barriers must be transported and stored on end, in their original packaging. Pallets are wrapped in a grey light-reflecting, UV-protective plastic film. Rolls should remain under this cover until ready for use.
- / Especially when working in strong sunlight, it is important to ensure that rolls taken from the pallet are installed immediately. Rolls left on the pallet should remain under the above-mentioned protective cover until ready to be installed.

9. MATERIAL PROPERTIES AND PHYSICAL VALUES

MATERIAL PROPERTIES	Standard	ALUTRIX® 600	ALUTRIX® FR
Overall thickness	EN 1849-2	0.6 mm	0.4 mm
Weight	EN 1849-2	approx. 700 g/m ²	approx. 300 g/m ²
Palletisation		20 rolls	30 rolls
Roll length	EN 1848-2		40 m
Roll width	EN 1848-2		1.08 m
Tensile strength longitudinal / transverse	EN 29073-3 / EN 12311-2	≥800 / 700 N/ 5 cm	
Resistance to tearing (nail shank) longitudinal / transverse	EN 12310-1	200 N	
Low temperature folding test	EN 495-5	- 20 °C	
Watertightness test 4 bar/ 72h	EN 1928	tight	
Hydrostatic pressure test (water column 2 m high for 15 mins)	EN 20811	tight	
Joint shear test	EN 12317-2	657 N/ 5 cm	
Fire behaviour	EN 13501-1	Class E	
Fire Classification	BS 476 Part 6	Class 0	
Water- vapour permeability sd-value	DIN 52615 / DIN EN 12572 / DIN EN 1931	> 1,500 m	
Water vapour resistance	BS EN ISO 12572	4,310 MNs/g	
Visible defects	EN 1850-1	none	
Durability / resistance against chemicals	EN 1847/1928	passed	
Durability / resistance to artificial aging	EN 1296	passed	
Impact resistance (room temp) method A & B	EN 12691	150 and 1,500 mm	
Resistance to static loading method A & B	EN 12730	20 kg and 20 kg	
Calorific value	DIN 51900-1	No requirements	≤ 10,500 kJ/m ²
FM Approval	FM Standard Class No. 4470	No requirements	Class 1

10 . DETAIL DIAGRAMS

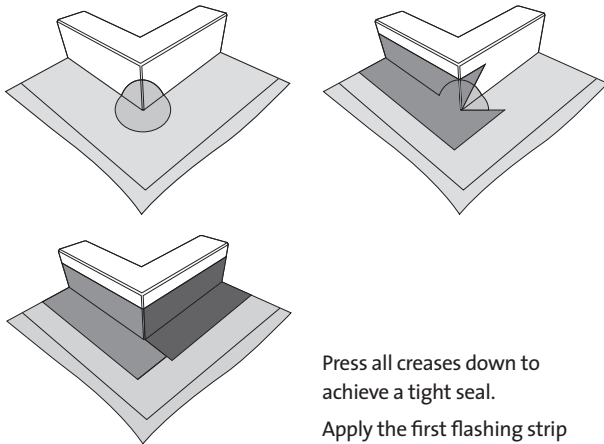
10.1 Internal corners



Apply the first flashing strip around the corner, forming an internal fold/ pleat.

Apply the second flashing strip up to the corner. Adhere the fold/pleat onto the second strip.

10.2 External corners



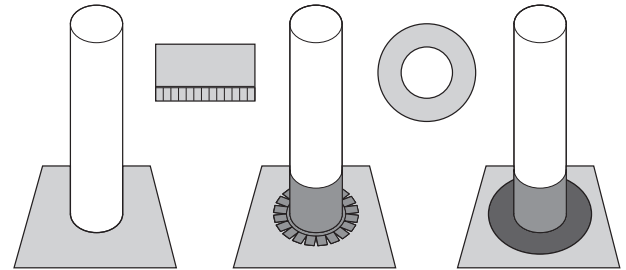
Adhere a rounded patch of ALUTRIX®, approx. 200 mm diameter, directly over the corner.

Press all creases down to achieve a tight seal.

Apply the first flashing strip beyond the corner, mitre at 45° and roll it down onto both surfaces.

Apply the second flashing strip up to the corner.

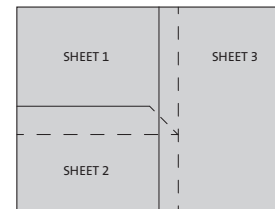
10.3 Pipe penetrations



Cut the flashing strip into a series of 'tongues' (approx. 30 mm wide). Take the strip around the pipe and press the tongues down onto the roof surface.

Pull a 'ring' flashing over the pipe and roll it down to the substrate, making sure it encapsulates the tongues.

10.4 Cross lap T-Junctions



Mitre the corner of the second sheet at 45° and seal it down, before applying the third sheet.

⚠ Please comply with general installation instructions for each type of detailing!



/ Certification to
DIN EN ISO 9001 and
DIN EN ISO 14001

CE 0432

DIN EN 13970



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