



innovative construction product assessments

CERTIFICATE NO:  
**2016/527**

# Confirmation of Certification

**AGREMENT CERTIFICATE 2016/527**

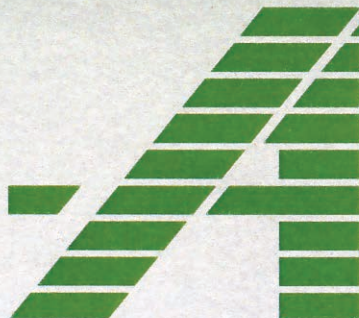
is awarded to:

**Roga Plastics cc t/a JemPlas,  
GeoPlas & RogaPlas**

in recognition of:

**RogaPlas Black Undertile Membrane**

which certificate provides detailed information on the performance in use and the uses of the subject of the certificate. When presented as proof of certification this document must be accompanied by the abovementioned certificate or by a certified copy of the typescript of the certificate approved by the Board.



  
CHAIRPERSON

Mr Pepi Silinga



**CERTIFIED COPY**

**AGRÉMENT CERTIFICATE  
NO 2016/527**

**ROGAPLAS BLACK  
UNDERTILE MEMBRANE**



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**Subject:**

**RogaPlas Black Undertile Membrane**

The master copy of this document appears on the website:  
<http://www.agrement.co.za>

**Validity**

Users of any Agrément certificate should check its status: all currently valid certificates are listed on the website. In addition, check whether the certificate is [Active or Inactive](#).

The certificate holder is in possession of a confirmation certificate attesting to its status.

**SANS 10400:** *The application of the National Building Regulations.*

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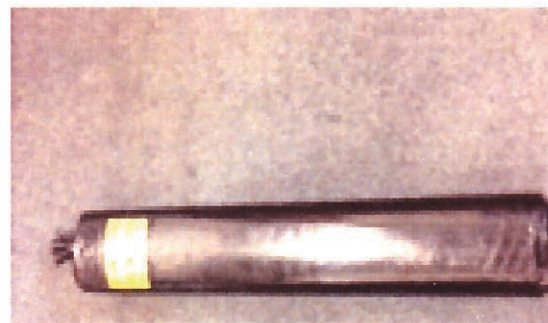
**Certificate holder:**

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**Description and use**

The RogaPlas Black Undertile Membrane is manufactured from a blow-extrusion process, recycled low density polyethylene (LDPE) film. The membrane thickness varies between 0.192 mm to 0.218 mm with a weight of 202 g/m<sup>2</sup>. It is supplied in rolls of 30 m long and 1.5 m wide.

RogaPlas Black Undertile Membrane is suitable for installation in all conventional and Agrément approved buildings. It is used in conjunction with timber (pitches equal or greater than 10°) or steel roof construction with light- or heavy weight cladding. It can be used in all regions of South Africa for all types of occupancy classification (**SANS 10400: Table 1 of regulation A 20 (1)**). When used as stated in the certificate it can:

- reduce air leakage
- reduce ingress to the roof space of wind-driven rain and dust.

This certificate and Agrément South Africa's assessment apply only to the RogaPlas Black Undertile Membrane that is manufactured by Roga Plastics cc. It is installed in accordance with the certificate holder's installation brochure and as described and illustrated in this certificate, and where the terms and conditions of certification are complied with.

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## PREAMBLE

This certificate is issued by Agrément South Africa in terms of the powers granted to it by the Minister of Public Works. This certificate:

- has been granted after a technical appraisal of the performance of the RogaPlas Black Undertile Membrane for the [uses](#) covered by the certificate,
- is independent of any patent rights that may or may not subsist in the subject of the certificate, and
- does not relieve the user from the obligation to obtain the prior approval of the building authority concerned for the use of the subject.

Agrément South Africa considers that the quality and performance of the RogaPlas Black Undertile Membrane will be satisfactory, provided that the requirements stipulated in this certificate are adhered to. However, Agrément South Africa does not on behalf of itself, or the State, or any of its employees or agents, guarantee such quality or performance.

Responsibility for compliance with the requirements of this certificate and the quality of the finished product resides with the certificate holder.

No action for damages, or any other claim whatsoever, lies against Agrément South Africa, its members, the State or any of its employees should the said material fail to comply with the standard set out in this certificate.

Interested parties or users who are in any doubt about any detail or variation should contact [Agrément South Africa](#).

The validity of this certificate is reviewed every three years. The certificate shall remain valid as long as Agrément South Africa is satisfied that:

- the certificate holder complies with the general and specific conditions of certification and the technical requirements stipulated in the certificate
- the performance-in-use of the subject is acceptable
- any changes in building legislation, regulations, relevant standards or Agrément performance criteria have not invalidated the technical assessment which formed the basis of certification.

Agrément South Africa reserves the right to withdraw the certificate at any time, should reasonable cause exist.

Notices affecting the validity of this certificate will be published in the *Government Gazette*.

## PART 1: CONDITIONS OF CERTIFICATION

### Good building practice as discussed in:

- the supplement to certificates, by [Agrément South Africa](#)
- The *Home building manual parts 1, 2 & 3* issued by the National Home Builders Registration Council (NHBRC)

The RogaPlas Black Undertile Membrane as described in this certificate must be:

- manufactured by the certificate holder
- installed in accordance with:
  - the technical description set out in [Part 3](#)
  - the certificate holder's installation manual
  - good building practice.

Any change to the material formulation, the production process, or the installation techniques set out in the certificate holder's brochure could result in various aspects of the performance of this product no longer complying with Agrément South Africa's performance criteria. Any change not authorised by Agrément South Africa in writing prior to its implementation will invalidate this certificate and the certificate can then not be used to demonstrate compliance with the National Building Regulations.

**SANS 17050-1**, *Conformity assessment-Supplier's declaration of conformity Part 1: General requirements*

**SANS 17050-2**, *Conformity assessment-Supplier's declaration of conformity Part 2: Supporting documentation*

Roga Plastics cc shall be responsible for the accuracy of the information contained within the Material Data Sheets, Technical Data Sheets and Material Performance Specifications, and all other information pertaining to the supply and application of the RogaPlas Black Undertile Membrane. Roga Plastics cc shall submit a COA (Certificate of Analysis) and COC (Certificate of Compliance) in terms of the requirements stipulated in **SANS 17050-1** Suppliers declaration of conformity when requested by Agrément South Africa in accordance with the documentation requirements of **SANS 17050-2**. Should Roga Plastics cc change or substitute any ingredient in the formulation of the product in question, then a notification shall be addressed to Agrément South Africa immediately.

### General conditions

#### Marking

The RogaPlas Black Undertile Membrane is marked with:

- the trade name printed on the roll
- the batch number
- the date
- Agrément identification logo and certificate number as illustrated in this certificate
- 150 mm side-overlap dotted lines.

The packaged rolls are marked with:

- the works order number

### RogaPlas Black Undertile Membrane

Tested and approved fit for purpose for use as a roof insulation foil when used as specified in

**CERTIFICATE 2016/527**





- the roll number
- Agrément identification logo and certificate number as illustrated in this certificate
- storage recommendations.

### Validity

The continued validity of this certificate is subject to a satisfactory review by Agrément South Africa every three years.

### Quality monitoring

The certificate holder is required to participate in Agrément South Africa's post-certification quality-management scheme, which requires:

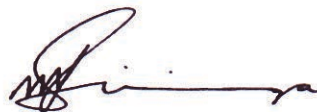
- that the certificate holder shall continuously maintain and implement the quality management system approved by Agrément South Africa in the assessment of the RogaPlas Black Undertile Membrane
- the certificate holder to notify Agrément South Africa within 30 days of any change of address of a factory and any new factories brought into operation by the certificate holder, for the purpose of manufacturing the subject of the certificate
- the certificate holder at any time of commencement of each contract, to provide Agrément South Africa with construction sites or structures on which the subject is to be used
- the co-operation of the certificate holder in facilitating post-certification quality monitoring by Agrément South Africa or its authorised agents.

### Reappraisal

- must be requested by the certificate holder prior to implementing changes to the product
- will be required by Agrément South Africa if there are changes to the National Building Regulations or to Agrément criteria.

This certificate may be withdrawn if the certificate holder or a registered licensee fails to comply with these requirements.

On behalf of the Board of Agrément South Africa



Chairperson

07 December 2016

## PART 2: ASSESSMENT

### Scope of assessment

This assessment applies to those innovative aspects of RogaPlas Black Undertile Membrane described in [Part 3](#) of the certificate. It also applies to those conventional aspects of the product which, in the opinion of Agrément South Africa, are influenced by the innovative aspects. The innovative aspects referred to are:

- use of the recycled low density polyethylene to form an undertile membrane.

This assessment was based on:

- factory inspection
- known behaviour of the materials used
- documentation provided by the applicant
- tests conducted on the material.

### Assessment

In the opinion of Agrément South Africa, the RogaPlas Black Undertile Membrane as described in the certificate is suitable for the use specified (see page 1).

The performance-in-use of the product will be such that the membrane will satisfy:

- the requirements of the National Building Regulations stated in Table 1. Any regulation not specifically referred to is considered to be outside the scope of this certificate and must be applied by the local authority in the normal manner
- Agrément South Africa's performance criteria.

Agrément South Africa's detailed comments on the assessment are set out in Table 1, 2 and 3 below. Each aspect of performance was assessed by experts in that field.

### Compliance with the National Building Regulations

The innovative aspects of the RogaPlas Black Undertile Membrane must comply with the National Building Regulations as set out in Table 1. Any regulation not specifically referred to is considered to be outside the scope of this certificate and must be applied by the local authority in the normal manner.

Republic of South Africa. *National Building Regulations*, Government Notice R. 711, Government Gazette No 34586, Pretoria, South Africa, 9 September 2011.



**Table 1: Compliance with National Building Regulations**

Aspects of performance	Opinion of Agrément South Africa	National Building Regulations satisfied
<b>Materials</b>	The quality and suitability of the materials are satisfactory.	The materials used in the RogaPlas Black Undertile Membrane are deemed to satisfy the requirements of Regulation A13 (1) (a): Administration.

**Table 2: Performance**

Aspects of performance	Opinion of Agrément South Africa	Explanatory notes
<b>Membrane thickness</b>	Satisfactory.	Samples tested indicate that the specified film thickness is achieved.
<b>Breaking strength and elongation at break</b>	Satisfactory.	<p>Tested in accordance with the requirements of <b>EN12311-1</b>.</p> <p><b>EN12311-1, Flexible sheets for waterproofing, Part 1: Bitumen sheets for roof waterproofing – Determination of tensile properties</b></p> <p>The performance of the undertile membrane is affected by heat ageing but is not considered to be detrimental as UV exposure is limited due to the membrane being installed under tiles.</p>
<b>Resistance to tearing</b>	Satisfactory.	<p>Tested in accordance with the requirements of <b>EN12310-1</b>.</p> <p><b>EN12310-1, Flexible sheets for waterproofing, Part 1: Bitumen sheets for roof waterproofing – Determination of resistance to tearing (nail shank)</b></p>
<b>Puncture resistance</b>	Satisfactory.	<p>Tested in accordance with the requirement of <b>SANS 952</b>.</p> <p><b>SANS 952, Polyolefin film for damp and waterproofing in buildings.</b></p>
<b>Water permeability and water vapour transmission rate</b>	Satisfactory.	<p>No water permeated through the membrane after ponding with 50 mm of water for 14 days.</p> <p>Meets the requirement of <b>SANS 952</b>.</p>
<b>Durability</b>	Satisfactory.	Agrément South Africa’s opinion is based on test results.
<b>Performance in fire</b>	Satisfactory.	<p>The membrane is suitable for installation in all conventional roof construction.</p> <p>Evaluated in accordance with the requirements of <b>SANS 428</b> and tested in accordance with the requirements of <b>SANS 10177-5</b> and <b>SANS 10177-10</b>.</p> <p><b>SANS 10177-5, Fire testing of materials, components and elements used in buildings Part 5: Non-combustibility at 750 °C of building materials</b></p> <p><b>SANS 10177-10, Fire testing of materials, components and elements used in buildings- Part 10: Surface burning characteristics of building materials using the inverted channel tunnel test.</b></p> <p><b>SANS 428, Fire performance classification of thermal insulated building envelope systems.</b></p>



**Table 3: Quality management system**

Aspects of performance	Opinion of Agrément South Africa	Explanatory notes
<b>Quality management system</b>	Satisfactory. The certificate holder's quality management system complies with Agrément South Africa's requirements. Properly applied, the quality management system will ensure that acceptable standards are maintained in the manufacturing and installation of the undertile membrane.	Agrément South Africa's requirements, based on <b>SANS/ISO 9001</b> .  <div style="border: 1px solid green; padding: 5px; display: inline-block;"> <b>SANS/ISO 9001, Quality management systems- Requirements</b> </div>



## PART 3: TECHNICAL DESCRIPTION

### General description

The RogaPlas Black Undertile Membrane is manufactured from a blow- extrusion process, recycled low density polyethylene (LDPE) film. The membrane thickness varies between 0.192 mm to 0.218 mm with a weight of 202 g/m<sup>2</sup>. It is supplied in rolls of 30 m long and 1.5 m wide.

### Manufacture

RogaPlas Black Undertile Membrane is manufactured by passing polyolefin through a blow-extruder to form a tube 216 µm thick (with a tolerance of ± 5 %). The tube passes through a series of rollers to cool the polyolefin and flatten the tube to form a double layer of membrane 750 mm wide. The membrane is split one side and embossed or painted as described below. The membrane is packaged in rolls 30 m long x 750 mm wide (when folded out 1.5 m wide).

Each roll of membrane is legibly and indelibly marked on the package with the following information:

- the trade name printed on the roll
- the batch number
- the date of manufacturing
- Agrément identification logo and certificate number as illustrated in this certificate
- 150 mm side-overlap dotted lines.

### Delivery and handling

The rolls are supplied in a sealed, clear protective sleeve, together with an insert detailing the roll specifications, as well as storage, handling and installation requirements. All rolls are supplied stretched-wrapped and labelled.

### Installation

The RogaPlas Black Undertile Membrane is installed by contractors and roof erectors in accordance with **SANS 10400**, Roga Plastics cc installation brochure and good building practice.

The membrane is installed horizontally across the rafters, starting at the eaves and working towards the ridges of the roof, with each subsequent layer overlapping the lower by 150 mm (minimum), with the overlapping of 150 mm facing upwards. Each horizontal run must be installed with a drape of 10 mm between rafters at 600 mm centres.

The membrane is tacked to the trusses with corrosion resistant staples or E.P. clout nails to secure the membrane in position until



the battens are nailed on top. The membrane between the trusses must be sufficiently taut, while allowing a shallow trough to facilitate run-off should rainwater penetrate the tiles (**Figure 1**). At the eaves, it is important that the membrane is taken from under the second-last tiling batten over the tilting batten (**Figure 2**).

At ridges and hips, a layer of DPC should be applied over the apex on top of the roofing undertile membrane (**Figure 3**). In valleys, a strip of RogaPlas Black Undertile Membrane at least 600 mm wide must be laid under the main roofing membrane and held down by valley battens (**Figure 6**).

After the membrane has been installed, tiling battens should be installed as soon as possible to prevent damage to the membrane by wind, and roof tiles placed to minimise exposure to the sun. It must be ensured that the roof membrane is turned up to less than 50 mm at all abutments to be overlapped by the flashing, and that it overlaps the lining tray by not less than 100 mm at the back face of abutment.

Good building practice should be followed when installing RogaPlas Black Undertile Membrane at penetrations and abutments. Any damage to the membrane should be sealed as recommended by the manufacturer.

### Protection of the membrane

The effects of exposure to UV-light can reduce the service life of the membrane. Therefore, protection against elements is required. The rolls must be stored under cover and when removed from the packaging, the membrane must be installed as soon as possible and the tiles packed as soon as practicable.

Protection is also required against traffic on the ground, during storage, during the installation process and once installed.

### Storage

On site the RogaPlas Black Undertile Membrane should be kept out of direct sunlight and stored on a raised, flat surface free of sharp protrusions.



## Drawings

