

TECHNICAL DATA

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Roofing	April 2006	PM	Jul 2004	1 of 6

**SOPREMA JARDIN Double Layer Torch-on membrane
For water proofing roof gardens and planters**

GENERAL

Soprema Jardin is a hot torch applied bituminous waterproofing membrane system. The bitumen is modified with SBS polymers and reinforced with 200gsm/m² fleece polyester. The system is a total of 6.2mm with Sopralene flam 180(3mm) torch applied and then over-laid with root-repellent Sopralene Jardin (3.2mm)

This specification deals with:

1. Manufacture of Materials
2. System Description
3. Surface Preparation
4. Application
5. Warranty
6. Maintenance
7. Producer Statement
8. Options

Green-roofs



- Substrate
- Vapour-barrier + insulation
- Waterproofing membrane (1st layer)
- Corner reinforcement
- Antirroot waterproofing membrane (2nd layer)
- Flashing (2nd layer)
- Edge band
- Drainage
- Filter
- Soil or growth media
- Vegetation

Relaunch

1. MANUFACTURE OF MATERIALS

All materials shall be produced supplied or specified by Nuplex Industries Ltd. To avoid incompatibility of component materials it is essential that Nuplex technical staff be consulted before any product other than those specified is used.

2. SYSTEM DESCRIPTION

Sopralene Jardin is available in a light coloured, root-repellant granule finish. The system may be installed as follows:

Double Layer only

Sopralene flam 180 torched directly to substrate. **Sopralene jardin** is torched directly onto the prefixed Sopralene Flam180. *Complies with Membrane Group Code of Practice..*

Jardin double layer is elastomeric and will elongate or contract with minor building movements and stay flexible over a long period of time. This will provide positive, long term waterproofing durability

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SOPRALENE JARDIN (cont'd)

3. SURFACE PREPARATION

It is the contractor's responsibility to inspect all areas which are to receive the waterproofing membrane and report any unsatisfactory conditions to the main contractor. Listed below are detailed specifications for preparing various substrates. The surface to be waterproofed must be clean and sound. Remove all dust, dirt, laitence or any other contaminants which may hinder adhesion of the membrane.

VENTILATION

It is important that membrane roof structures are vented to prevent condensation build up and subsequent damage. Ventilate between roofing framing and to the exterior. Specific designs and advice are available. Ridge vent caps are an effective solution.

ROOF SLOPE

This Soprasun double layer roofing system will fully waterproof a flat roof. (However the New Zealand Building Code requires a 1.5° slope. 1:40). Very low pitched roofs will pond unless care is taken with roof substrate preparation and attention to detail is applied to the sheet layout to prevent water ponding behind laps. In roof gardens with flat bases a chased channel will assist in preventing water buildup. The Jardin system will waterproof water standing areas.

CONCRETE

Any hollows shall be filled and ridges ground smooth (use Nuplex FLC). Surface must be free of any spalled areas, loose aggregate and sharp protrusions. Outside corners must be free of sharp edges.

Substrate must be dry. The use of Nuplex Aquaguard 101 is an option to isolate damp concrete. Aerisol Flam ventilation sheet is recommended (with vents) to control moisture being emitted from the concrete substrate. This is applied under the membrane sheets.

Control joints shall be treated as specified by architect, engineer and approved by membrane manufacturer. For suggestions see "detailing" on Nuplex website.

BLOCKWORK

Sopralene Jardin system may be applied to smooth concrete block substrates.

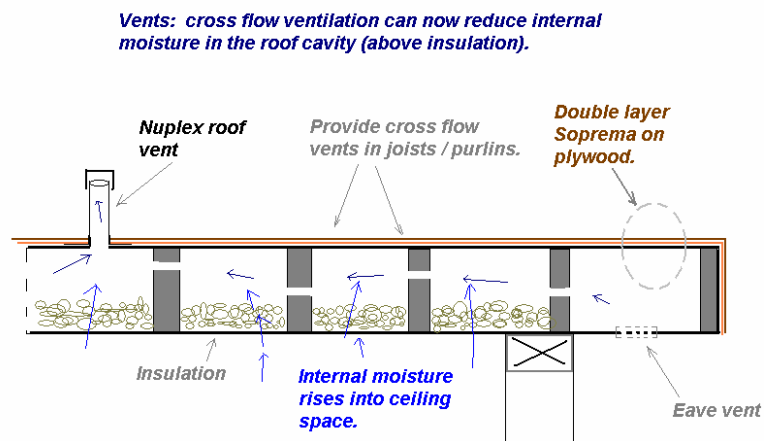
Any pointed blockwork must be flushed out.

If blockwork is rough a well adhered coat of Nuplex FLC may be used to achieve a smooth substrate.

VENTILATION

Ventilation to the full roof cavity must be provided to prevent moisture build up in the cavity. The vented area should be below the ply but above any insulation. Side vents on opposite sides of the building are preferred with full cross ventilation designed into the structure. Distances exceeding 10m should have separate roof vents.

Nuplex provide vent systems.



OTHER

Any other substrate or areas with existing waterproofing membranes please refer to Nuplex Industries Ltd for advice.

4. APPLICATION

All products shall be applied by approved contractors.

DOUBLE LAYER INSTALLATION

Apply Nuplex Membrane Primer at a spreading rate of 5m²/litre. To all interior and exterior corners hot torch apply a 100mm Sopralene Flam 180 fillet. Hot tool chamfer all edges.

Install expansion joints (in the ply) to allow for plywood movement. The position of the joints will be specified by the roofing engineer. Nuplex provide expansion joint details.

A Nuplex double layer roofing system will tank a fully flat roof (0° pitch). (However the NZ Building Code does stipulate a minimum 1.5° (1:40) roof pitch.) Nuplex state that a double layer system is waterproof and will hold and resist ponding water.

Protrusions/Vents: Install and/or waterproof these as per Nuplex detailing.

Ensure double layers (minimum) of membrane are installed.

To main roof area hot torch apply a layer of Sopralene Flam 180 with 75mm wide side laps and 100mm end laps. Hot tool chamfer all edges.

To parapets and upstands hot torch apply Sopralene Flam 180 extending lap over main roof areas by at least 75mm.

Hot torch apply second layer of Sopralene Jardin to first layer ensuring that all laps are staggered.

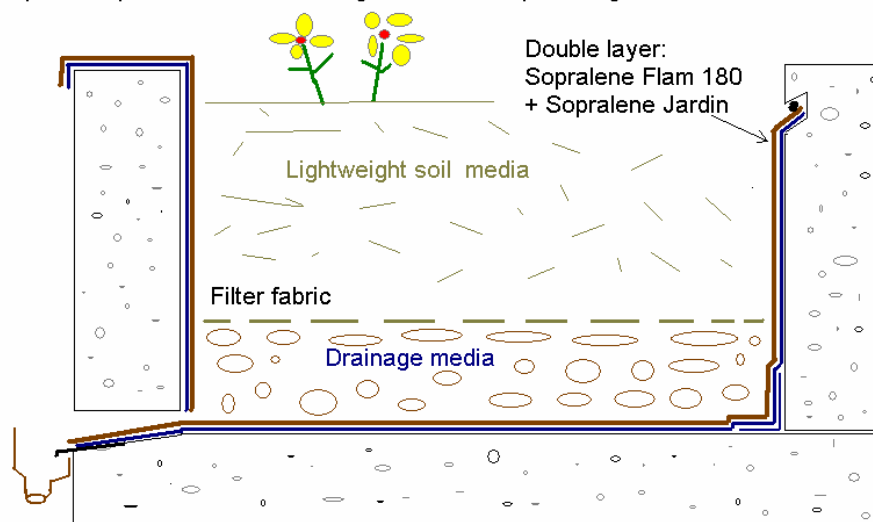
Hot torch apply second layer of Sopralene Jardin to all parapets and vertical upstands extending laps over main roof area at least 100mm.

Any terminations to vertical surfaces are to be finished under a flashing which is mechanically fixed and sealed with Elastothane 230 polyurethane sealant.

Protection: Roof garden membranes (Jardin) should be protected from physical damage by the installation of protection sheets, fibrecement, polystyrene. Etc. The jardin will not allow root penetration but it must be protected from damage during gardening.

The contract should clearly outline the responsibilities of the waterproofer and the garden installation team.

Nuplex Soprema Jardin Roof garden Waterproofing



5. **DETAILS**

Detail for upstands, penetrations, gutters, inlets, outlets etc are on our website (/roofing /details). The details are all compliant with E2 AS1 (detail sections 8.5.) however the Nuplex membrane system is in double layer form.

6. **WARRANTY**

Soprema provide a 10 year material and labour warranty against claims due to product failure or incorrect specification. An insurance policy provides guarantee of cover. A further policy is jointly provided by Nuplex to 15 years in compliance with the New Zealand Building Act. This warranty covers the performance of the membrane itself and does not warrant against excessive building movement. Only double layers systems are covered by the 15 year warranty.

7. **MAINTENANCE**

Roof gardens and planters are subject to damage from gardening work. These damages must be avoided. Regular inspections are to be carried out to identify any areas of damage. These are to be repaired by apply a patch of Jardin.

8. **PRODUCER STATEMENT**

Sopralene Jardin System is provided by Soprema as suitable as an exterior roof cladding in the New Zealand environment. As such it is compliant with the New Zealand Building Act. A 15 year warranty is supplied. Double layer Sopralene Jardin is an alternative solution with the requirements of E2/AS1 July 2005.

Nuplex Industries Ltd are a founding member of the Membrane group Code of Practice for Torch-on membranes.

9. **Approvals**

Tested to FFL test procedure. Resistance to root penetration.

Weight (double layer): 10kg/m²

	SOPRALENE FLAM JARDIN	
	MDV (1)	MLV (2)
- Tensile strength (EN 12311-1)		
. Longitudinal	950 N/5 cm	800 N/5 cm
. Transversal	700 N/5 cm	550 N/5 cm
- Elongation at break (EN 12311-1)		
. Longitudinal	50 %	40 %
. Transversal	50 %	40 %
- Resistance to tearing (UEAtc-MOAT NO.21 para 5.41)		
. Longitudinal	200 N	150 N
. Transversal	200 N	150 N
- Low temperature flexibility (UEAtc-MOAT NO.31 para 6D)	-20 °C	-15°C
- Heat resistance (UEAtc-MOAT NO.31 para 6E)	105 °C	100 °C
- Dimensional stability	0,3 %	0,5 %

(1) MDV = Manufacturers determined value : An arithmetic mean value of a minimum number of independent measurements

(2) MLV = Manufacturers limitina value : Minimum or maximum values as stated by the manufacturer to be

10. Other roofing options

(i) **Under Tiles**

Specify two layers of Soprasun 4. Tiles may be loose laid or bonded using Nuplex Red Label . Use Nuplex FLC to create falls. Plastering with FLC over Soprasun **4AR** is preferred as the aggregate chips give better adhesion.

Expansion joints are required. (See Decks, above for code compliant systems).

(ii) **Tanking**

Specify Soprasun 4, bonded vertically using a 75mm overlap. Mechanically fix and seal the top edge. Protect the membrane before backfilling.

(iii) **Mechanically affixed systems**

Nuplex supply **Soprema Soprafix HP**; refer to this datasheet. These systems are screw fastened with numerous site advantages. This system consists of Soprafix HP (2.5mm) screwed down with a staggered cap sheet of Sopralene Flam 180AR (4mm).

(iv) **Sopralene Flam SBS system**

This is a two layer system of Sopralene Flam 180 (3mm) and Sopralene Flam 180AR aggregated. This SBS system is very durable, flexible and resistant to UV and aging.

(v) **Copper membrane Roofing**

This is a double layer system of Sopralene Flam 180 (3mm) and Sopralast TV copper (4mm).

This system has a true copper top skin which will age as normal copper. Must be double layer.

(vi) **Aerisol Flam**

This is a system which is used under a membrane roof. It contains holes which will allow horizontal ventilation.

Often used on concrete decks.

It is not a membrane layer as it has the holes.

This specification is to be read in conjunction with other relevant technical data sheets. If in any doubt or confusion exists please contact Nuplex Industries Ltd, Construction Products Division.

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