



WATERPROOFING

APPLICATIONS

ROOFS

GREEN ROOFS

PLANTER BOXES

# SOPRAGUM GARDEN PLUS 4 BLACK DIAMOND

TECHNICAL DATA SHEET

ANZ-TDS-02B-SOPRAGUM GARDEN PLUS 4BD

## DESCRIPTION

SOPRAGUM GARDEN PLUS 4 BLACK DIAMOND is an APP-modified bitumen waterproofing membrane integrated with anti-root additives designed for green roofing, planter boxes and below grade applications.

SOPRAGUM GARDEN PLUS 4 BLACK DIAMOND is reinforced with a non-woven polyester combine with fiberglass. The composite reinforcement conveys good mechanical characteristics, excellent dimensional stability, and elastic performance.

SOPRAGUM GARDEN PLUS 4 BLACK DIAMOND topside of is protected by black mineral granule providing UV protection and the underside is covered by a thermofusible film.

Compliance with AS 4654.1

Anti-root properties

Excellent dimensional stability

Excellent elastic performance

Good mechanical properties

## FIELD OF APPLICATION

SOPRAGUM GARDEN PLUS 4 BLACK DIAMOND is suitable as top layer for single-ply or multi-layer waterproofing assemblies in protected systems where root resistance is required. It can be used in vertically and horizontally waterproofing for the following general applications:

- Green Roofs
- Plaza decks
- Planter Boxes
- Retaining Walls

## APPLICATION METHOD

SOPRAGUM GARDEN PLUS 4 BLACK DIAMOND can be fully heat welded using a propane torch or MINI MACADEN.

## INSTALLATION PROCEDURE

### SUBSTRATE

- No work should be started until all surfaces are smooth, dry, and free of ice, snow or any other substance that may prevent the membrane from adhering properly
- Substrate must have a minimum 1% gradient to ensure that water drains to drainage outlets
- Do not install heat welded membranes directly onto combustible substrate
- Concrete substrate must be fully cured before application of the membrane
- Concrete substrate must have a Concrete Surface Profile (CSP) between 3 and 6 as per International Concrete Repair Institute
- Adhesion test is recommended prior to installation of membrane
- Commencement of installation shall be taken as acceptance of the substrate by the Applicator

### PRIMING

- When installed as top layer over base sheet membrane, a primer is not required.
- When installed over concrete or metal surface prime with ANTIROCK PRIMER at the rate specified in TDS



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### INSTALLATION PROCEDURE (CONT.)

#### HEAT WELDING

- Unroll membrane sheets onto the roof surface
- Starting at the low point of the roof, lay out the membrane to ensure the plies are installed perpendicular to the roof slope, shingled to prevent back-water laps
- Ensure specified side-laps and end-laps are maintained. End-laps should be staggered 1m apart
- As the membrane ply is unrolled, apply heat to the underside of the ply until the thermofusible film melts sufficiently for full adhesion to the substrate, and full adhesion between plies
- For hand-held roof torches, continuously move the torch side-to-side across the underside of the roll to melt the bitumen while continuously unrolling sheet. While unrolling and heating the sheet, ensure approximately 6 to 12 mm of hot bitumen flows ahead of the roll, and there is 3 to 6 mm bleed out at all laps. Ensure all side-laps are fully adhered and sealed watertight
- Adjust application methods to accommodate varying environmental conditions as necessary to achieve the desired results
- At the 150 mm end-laps ensure a fully adhered watertight seal. Melt the thermofusible film or embed granules and remove other membrane surfacing, where present, using a torch or hot-air welder
- All penetrations and upturn details should be waterproofed as per SOPREMA Installation Guides and detail drawings

FOR COMPLETE INFORMATION ON PRODUCT INSTALLATION, PLEASE CONSULT YOUR SOPREMA REPRESENTATIVE.

#### PACKAGING

SPECIFICATIONS	SOPRAGUM GARDEN PLUS 4 BLACK DIAMOND
Thickness	4 mm
Roll dimensions	10 m × 1 m
Roll weight	45 kg
Rolls per pallet	20

(All values are nominal)

#### PROPERTIES

PROPERTIES	TEST METHOD	SOPRAGUM GARDEN PLUS 4 BLACK DIAMOND
Abrasion resistance*	AS 1580.403.2	PASS
Bond strength to concrete	ASTM C794	27.4 N/2.5 cm
Cyclic movement	CSIRO Moving joint test (B)	PASS
Dimensional stability	ASTM D5147	MD: -0.10 % ; CD: -0.19%
Elongation at break	AS 4654.1	37 %
Field seam strength	ASTM D1876	1.2 (±162) N/m
Heat ageing	AS 4654.1 (AS 1145.3)	PASS ; no visual change
Ultraviolet resistance*	AS 4654.1 (AS 1145.3)	PASS ; no visual change
Tensile strength	ASTM D5147	740 N/5CM
Durability	AS 4654.1	PASS
Watertightness	EN 1928-B:2000	> 200 kPa
Water vapor transmission rate	AS 4654.1	0 perm**

\* Applicable only to self - protected \*\* The results values are below the variation of the equipment. We consider that the sample have no water vapor transmission



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NOTE : ALL products manufactured by SOPREMA Inc. comply with the description and properties indicated in the technical data sheet that was current at the date of manufacture.



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### STORAGE AND HANDLING

Rolls must be stored upright, with the selvedge side on top. If stored outdoors, cover them with an opaque protection cover after removal of the delivery packaging. Shelf life of SOPRAGUM GARDEN PLUS 4 BLACK DIAMOND is 36 months, when properly stored.

### STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this publication is based on the present state of our best knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by Commonwealth or State Legislation. The owner, their representative and/or the contractor are responsible for checking the suitability of products for their intended use.

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