



Premium FlowTM

Reticulation

Termite Management System

Architects, Engineers and Builders
Installation and Specification Guide

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Thank you.

Premium Flow[™] Termite Management System

Product description

Premium Flow[™] is a reticulation system designed to deter against the concealed entry of subterranean termites into a structure. The *Premium Flow*[™] termite management system **can assist** to provide “whole of building protection against concealed entry by subterranean termites into the structure” as per the Australian Standards code AS3660.1:2014. *Premium Flow*[™] complies with the requirements of the Australian Standards code AS3660.1:2014(new building work) and AS3660.2:2017(in and around existing buildings and structures), the National Construction Code 2022, and the Northern Territory, Queensland and Western Australia variations related to termite management systems contained within the NCC 2022. The *Premium Flow*[™] termite management system is certified under CodeMark[™] Australia, the certificate of conformity number is CM40359.

The *Premium Flow*[™] system is only to be installed by a licenced Pest Management Technician duly trained and accredited by Protectant Pest Management in accordance with relevant state and territory regulations.

The *Premium Flow*[™] system utilizes state-of-the-art cylindrical PC low-volume emitters at 200mm centres to provide uniform calculated delivery of the termiticide. The co-efficient of uniformity (CU) for the discharge of termiticide from the emitters in the *Premium Flow*[™] line is approximately 98%. Dispersal of the termiticide is then further enhanced by the properties of the *Premium Flow*[™] geotextile sleeve to create an even in soil dispersal.

The chemical in soil matrix termite management system is produced by a combination of mass flow in the geotextile which delivers the termiticide and capillary action in the soil which is responsible for its spread.

Any disturbance of the soil horizontally or vertically within 300mm of the *Premium Flow*[™] termite management system may disrupt the continuity of the termiticide in the soil and void the warranty. This could be because soil is removed or because the barrier is covered with untreated soil or mulch. In all cases, the area should be repaired and chemically retreated. Furthermore the finished level of the soil or mulch should ideally be 25mm up to a **maximum** of 50mm above the top edge of the system.

Chemical in soil matrix termite management systems require recharging - check the installation certificate for recharge cycle (typical 3-5 years subject to site conditions)

Please be aware it is a requirement of the Australian Standards 3660.2-2017 Section 3.3 that all Termite Management Systems have a regular inspection undertaken at least annually.

If you have any further queries regarding the *Premium flow*[™] termite management system please do not hesitate in contacting our office.

Premium Flow™ Termite Barrier

Technical Data

Premium Flow™ is constructed from 15.7mm OD delivery line with a wall thickness of 0.9mm (13.9mm ID) with emitter spacings at 200mm. The co-efficient of uniformity (CU) for the discharge of termiticide from the emitters in the *Premium Flow*™ delivery pipe is approximately 98%. This delivery pipe is then enclosed in a geotextile sleeve which further enhances the uniform dispersal of the chosen termiticide. Soil capillary action then creates the chemically treated zone.

Up to a 70 metre treated zone can be achieved from a single fill point with a maximum individual run length of 35 metres either side of the fill point.

Premium Flow™ will deliver 100 litres of termiticide dilution to each cubic metre of treated zone in less than 15 minutes

Premium Flow™ is manufactured in Australia from UV stabilised and biologically resistant materials and has a serviceable life that will exceed 50 years.

Premium Flow™ is suitable for use with any APVMA registered Termiticides that is approved for use in a reticulation system.

Opening Pressure - 0m head

Discharge Rate - 20 L/m/hr (litre/metre/hour)

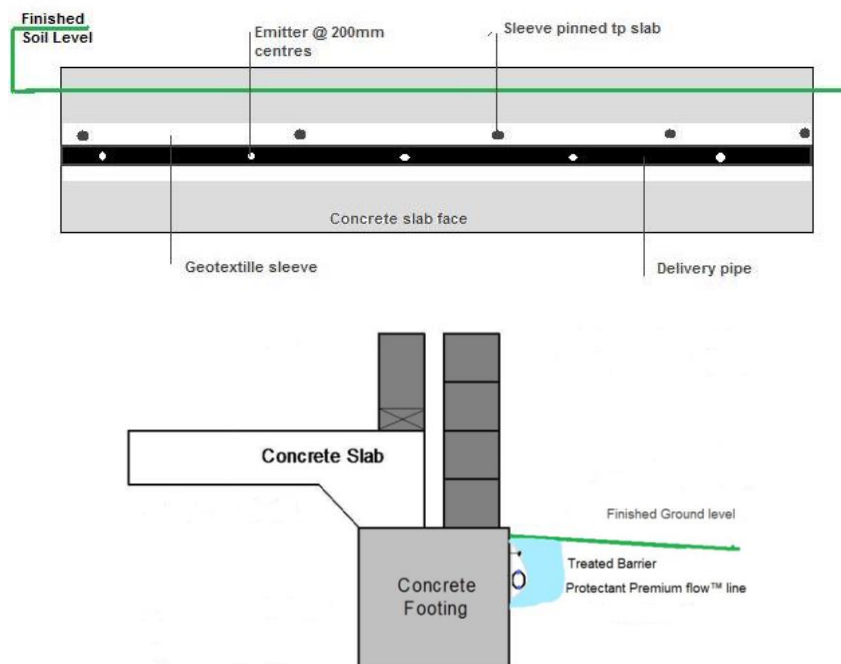
Operating Pressure Range: 0 - 18m head (0 -176kPa) (0 – 25.5 psi)

Component Materials:

- Irrigation pipe: Polycarbonate
- Geotextile: Polyester composites

Connection fittings: Delivery line and 16mm Cam-lock fittings

Suggested depth of installation: 25-50mm below finished soil level



Components

PART PHOTO	PART NAME	PART NUMBER
	COMPLETE LINE AND CLOTH	RT-COMPLETE LINE
	WARNING PLATE	RT-PLATE
	STOP END	RT-NLP16
	TEE JOINER ALSO SUITABLE FOR USE AS A TEE PUMP-UP POINT WHEN COMBINED WITH 20MM THREADED CAP	RT-NLT16
	90°ELBOW ALSO SUITABLE FOR USE AS A SINGLE PUMP-UP POINT WHEN COMBINED WITH 20MM THREADED CAP	RT-NLE16
	INLINE JOINER	RT-NL16
	20mm THREADED CAP FOR FILL POINT CLOSURE	RT-TCA-20
	PATHWAY TRAP FOR FILL POINT ACCESS	RT-BOX
	BLANK LINE TO JOIN ISOLATED PIERS INTO MAIN LINE	RT-BLANK LINE
	LINE WITH EMITTER	RT-LINE
	GEOTEXTILE CLOTH	RT-CLOTH

***Premium Flow*[™] Installation Preparation**

Measure the length of the required *Premium Flow*[™] termite management system and find the best position for the fill point/s. **The maximum size of a zone is 70m. This is achieved by installing two 35m lines, one in either direction from the fill point.**

If the length of the required *Premium Flow*[™] termite management system is greater than 70m more than one zone and fill point will be required.

Premium Flow[™] termite management systems on different ground levels will need separate zones for each level.

Excavate a trench 150mm wide and 75mm deep where the *Premium Flow*[™] termite management system is to be installed

Remove contaminants and foreign matter from the trench including timber offcuts, building debris, stones, large clods of clay etc

Identify if the soil type is suitable for termiticide application or if soil replacement is required (refer to the soil profile section for more information)

Identify prominent locations for the permanent attachment of Warning Plates (not greater than 10 metres apart)

Lay *Premium Flow*[™] complete line and cloth in trench in preparation for installation.

CODEMARK WARNING

Where installation of this product or system has not been undertaken strictly as per these instructions of Protectant Pest Management Pty Ltd. and the CodeMark certification and claims for compliance under the National Construction Code NCC-2022 and where relevant ABCB Housing Provisions Standard-2022 will be deemed null and void. Where this has occurred, alternative building compliance solutions will need to be sought for the specific job site.

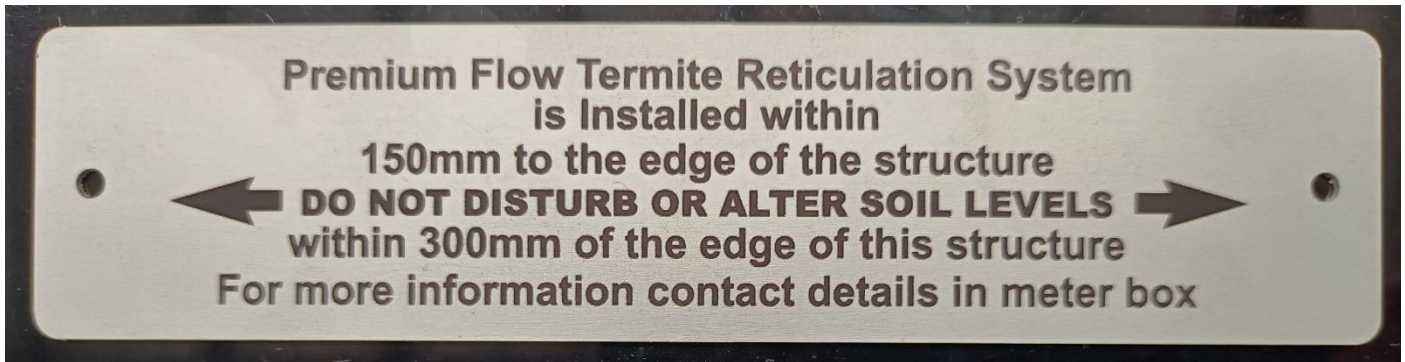
Premium Flow™ Warning Plate Installation

The “Warning Plate” installation is specific to the external perimeter wall of a building which does not have in place a concrete cover strip not less than 50mm thick and 300mm wide, that being an attachment to a building i.e. surrounding concrete pathways, attached concrete patios and concrete verandahs, attached concrete pads for air-conditioning units, hot water heaters and concrete pads for rainwater tanks or concrete driveways.

The advisory sign “Warning Plate” must be permanently fixed in a prominent location, not greater than 10 metres apart to external perimeter wall as required, where no concrete cover abuts the building.

Where any single length of external perimeter wall is greater than 10 metres additional advisory signs “Warning Plate” shall be fixed at 10 metres or less spacing.

Each advisory sign “Warning Plate” fixed to the external perimeter wall of a building by use of an appropriate adhesive and/or fastening screws must be not less than 300mm above the finished ground level to allow for ease of access and readily seen for inspection.



Construction:

High grade sheet aluminium, Shore hardness D80 (instantaneous), minimum thickness 1.0mm

Dimensions (minimum):

Length; 150mm, Width; 35mm x Thickness 1.0mm

Premium Flow™ Soil Profile

Premium flow™ produces a uniform barrier in the soil by way of a combination of two properties:

- Mass flow in the geotextile which delivers the termiticide dilution.
- The capillary action in the soil which is responsible for its spread.

Capillary wetting is the wicking action of a soil. It determines the width of the wetting pattern and is important for the development of a uniform chemical barrier in the soil

Soils differ in their capillary properties, and this is broadly related to soil texture. Fine clay soils produce the widest patterns, but these develop relatively slowly which is a disadvantage when creating a chemical barrier. Sands react relatively quickly but do not achieve the same width.

Most termiticides are adsorbed onto clay and organic matter in soils. This protects the chemical barrier from washing out which can be a problem with pure sands.

Too much clay or organic matter can also be undesirable because they strip out the chemical and restrict its dispersal in the soil.

Care should be taken selecting the soil that is used to cover the system.

A sandy loam is preferable. Soils with more than 10% clay or with a high content of added organic matter (compost, potting mix, biosolids etc) should be avoided. Soils that are water repellent should also not be used.

Large clods of clay, rocks, bricks, timber and other debris should be removed from the soil as they will interfere with the spread of the chemical by capillary action.

Gypsum is a useful addition to any soil as it improves capillary spread. Apply at the rate of 250g/m³

The sand or soil is nominally 50-100mm in depth is clean and has a grade within the following specification,

95-100% passing 6.7mm and 0-10% passing 75um sieves."

In both the sieve size comply with AS 1152-1993 'Specification for test sieves.

Manufactured Soils

Where the available soil is unacceptable one of the following may be used:

- Brickies Sand – This is a mixture of sand and clay components and is available across Australia
- Screened sandy loam suitable for top dressing lawns. This is generally referred to as screened living soil. The Screening process reduces the total volume of compost and biosolids etc.
- 50%Paving dust and 50% fine sand – paving dust will absorb moisture readily and so will fine sand

Premium Flow™ Perimeter Installations

Measure the length of the required *Premium Flow*™ termite management system and find the best position for the fill point/s. **The maximum size of a zone is 70m with two 35m lines either side of the fill point.**

If it is greater than 70m more than one zone and fill point will be required.

Premium Flow™ termite management systems on different ground levels will need separate zones for each level.

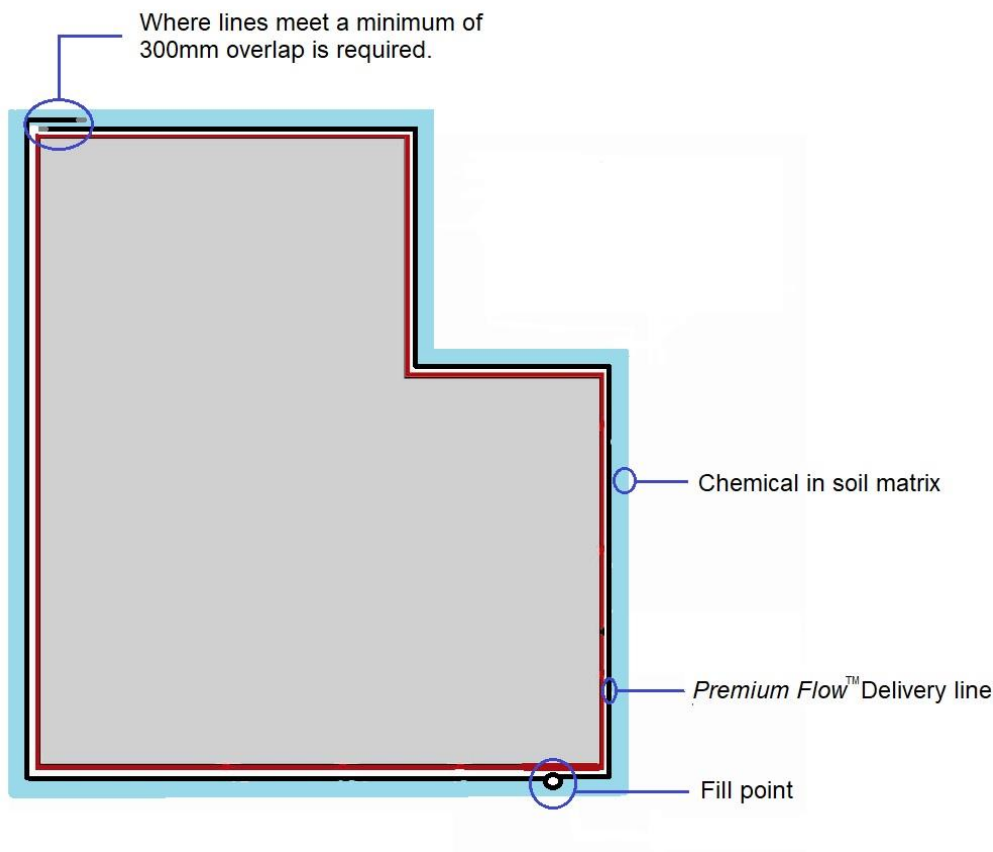
Excavate a trench 150mm wide and 75mm deep where the *Premium Flow*™ termite management system is to be installed

Remove contaminants and foreign matter from the trench including timber offcuts, building debris, stones, large clods of clay etc

Identify if the soil type is suitable for termiticide application or if soil replacement is required (refer to the soil profile section for more information)

Identify prominent locations for the permanent attachment of Warning Plates (not greater than 10 metres apart)

Start the installation from the pump-up point. This should be located at a point accessible to the street front to make charging of the system easier.



Premium Flow™ Critical Control Joint Installations

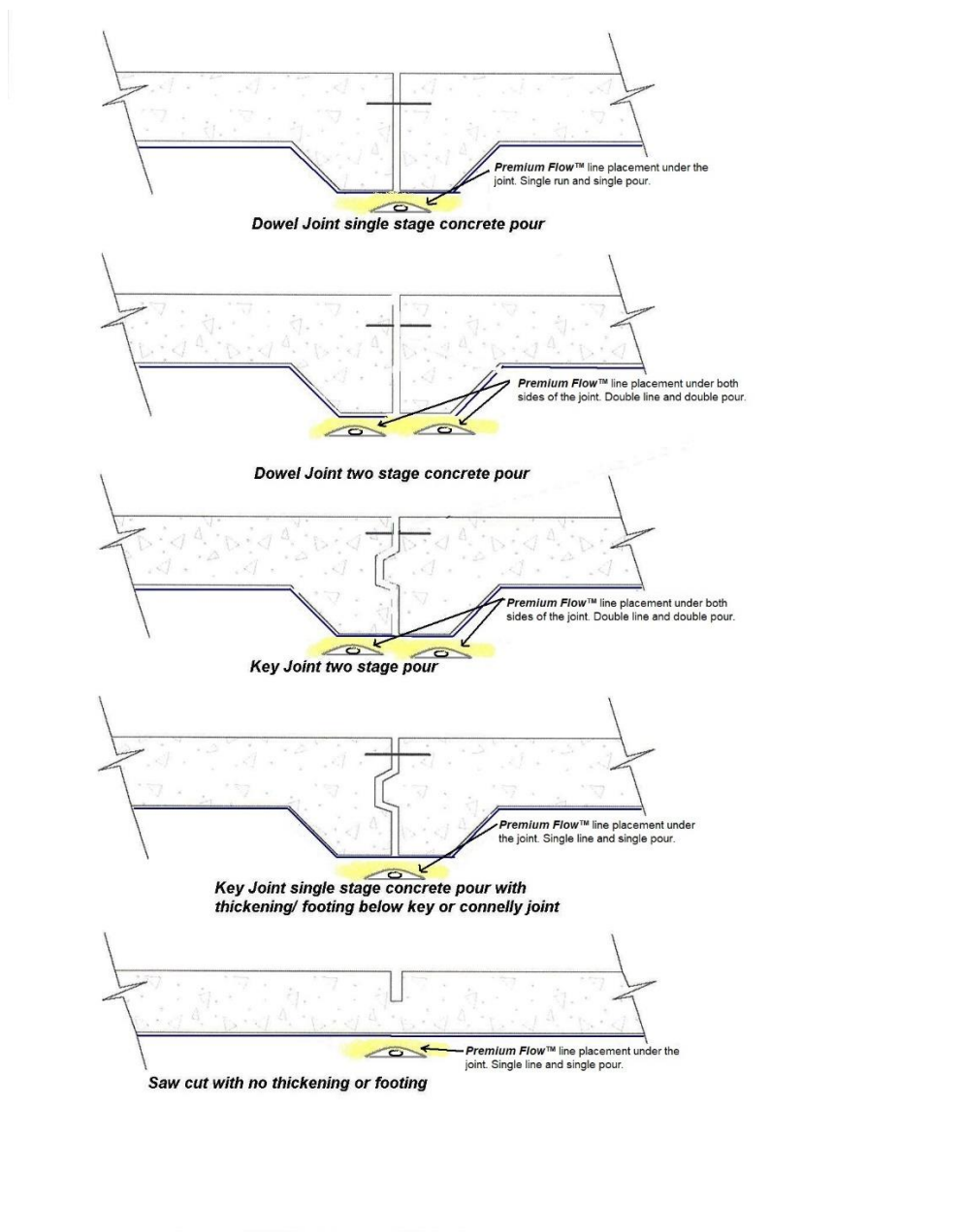
Measure the length of the required *Premium Flow*™ termite management system and find the best position for the fill point/s. **The maximum size of a zone is 70m with two 35m lines either side of the fill point.**

If it is greater than 70m more than one zone and fill point will be required.

Premium Flow™ termite management systems on different ground levels will need separate zones for each level.

Premium Flow™ is placed on a pad of sand under the moisture barrier (plastic sheet) at the line of a construction joint in concrete slabs.

This will form a chemical barrier approximately 300mm wide at the construction joint.



Premium Flow™ Retaining Wall Installations

Measure the length of the required *Premium Flow*™ termite management system and find the best position for the fill point/s. **The maximum size of a zone is 70m with two 35m lines either side of the fill point.**

If it is greater than 70m more than one zone and fill point will be required.

Premium Flow™ termite management systems on different ground levels will need separate zones for each level.

Premium Flow™ is attached to the soil face of a retaining wall and is layered at 200mm centres across the surface of the retaining wall.

