

SUMMARY OF PROTHOR USAGE RATES (refer to label for complete details)

SITUATION	PESTS	RATE	CRITICAL COMMENTS
Existing buildings: Barrier treatments for existing buildings including domestic, industrial, government and commercial premises. Also applicable to external barriers (only) around new buildings.	Subterranean termites (except <i>Mastotermes darwiniensis</i>) <i>Mastotermes darwiniensis</i>	Spray solution mixing rate 250 mL per 100 litres of water 500 mL per 100 litres of water	(See also General Instructions) Mix the required quantity of Prothor in water and apply using suitable application equipment to form a complete and continuous barrier around and under the structure. The barrier may be created using a combination of conventional spraying and trenching along with soil rodding. Concrete foundation slabs and paths around the structure should be drilled and injected with Prothor solution including along the expansion joints, edges and cracks. In some cases the use of wetting agents or foaming agents may be useful in overcoming non-wetting soils or getting a more even application in areas of difficult access or soil subsidence. If the barrier is disturbed by earthworks, construction or severe drainage problems it will have to be restored by reapplication. New posts: treat the bottom of the hole and the backfill using a minimum of 10 L of solution per hole. Existing posts: create a continuous barrier 150 mm wide by soil rodding or spraying the backfilled soil to a depth of 450 mm. Infested posts may also be drilled and injected with spray solution. Note that it is impossible to treat the soil at the bottom of a sound post so future termite attack from below the treated area cannot be ruled out. Locate the nest by drilling holes into the wall, pole or tree. Ensure that the full size of the nest is identified especially the highest point. Apply at least 20 litres of diluted Prothor into the nest through the drill holes. Drill holes should be sealed after application. Note application to wall cavities behind plasterboard may result in water/mud staining of the plasterboard. Use of a dry foam applicator can reduce this risk and improve distribution within the wall cavity.
Service poles and fence posts.			
Nests in wall cavities, poles and trees.			

RETICULATION APPLICATION

SITUATION	PESTS	RATE	CRITICAL COMMENTS
Reticulation systems: Perimeter and/or service penetration treatment Complete under slab installations	Subterranean termites (except <i>Mastotermes darwiniensis</i>) <i>Mastotermes darwiniensis</i>	Spray solution mixing rate 250 mL per 100 litres of water 500 mL per 100 litres of water	The reticulation system (refer to the General Instructions) must be installed according to the manufacturer's specifications. Incorrectly installed reticulation systems will not establish a complete and continuous barrier and will not provide protection of structures from concealed entry by termites. Prothor must only be applied via a reticulation system that has been installed with a prepared sand/soil bed of a minimum depth of 100 mm and even compaction. If this is not possible, alternative termite protection should be arranged for these areas (see General Instructions for further system requirements). The reticulation system installer must ensure that the installation will result in the application of not less than 250 mL (500 mL for <i>Mastotermes darwiniensis</i>) of product per m ³ of soil, applied in a continuous treated zone not less than 100 mm thick. The volume of soil treated and diluted solution applied by a reticulation system is dependent on both the parameters of the particular system and the type of soil present. Guidelines should be sought from the reticulation system manufacturer. For a barrier with dimensions of 300 mm deep x 150 mm wide, 5 L per linear metre is suitable for perimeter and/or service penetration only systems. This rate should be adjusted for systems treating a different volume of soil. For the horizontal barrier under the slab, not less than 50 mL (100 mL for <i>Mastotermes darwiniensis</i>) product should be applied per m ² . In addition the reticulation system installer must ensure that a prepared sand/soil bed of 100 mm depth is provided across the whole of the underslab installation to ensure complete horizontal coverage with the diluted product.

ABOUT ENSYSTEX AUSTRALASIA

Ensysytx researches, develops, formulates, manufactures and supplies premium quality, environmentally responsible, urban pest management solutions for use by professional pest managers; and has achieved a high international reputation for these products.

Unlike other companies where urban pest control is a spin-off from their more lucrative agricultural business; Ensysytx is focused on the urban pest management market with its uniquely different profile. Ensysytx's vision is to be the 'first choice for environmentally responsible, effective, long-term pest management solutions'.

Ensysytx is a privately owned company, dedicated to the supply of superior products to professional pest managers. As a research-based international company Ensysytx has active ingredient synthesis and product formulation facilities in 14 different locations; two in the USA, two in Australia, one in Thailand, seven in China, one in Germany, and one in Russia. Research facilities are located in North Carolina, USA; and in Victoria and NSW in Australia.

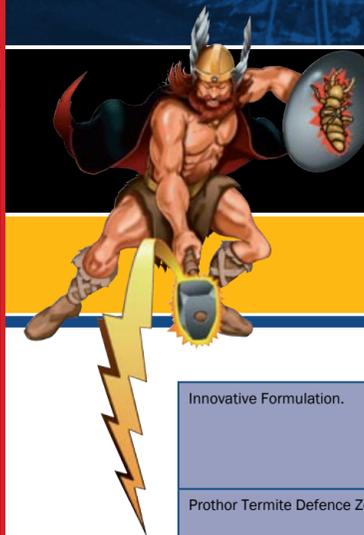
Further evidence of the Ensysytx commitment is displayed through the team of dedicated professionals employed in Australia. Ensysytx now has the largest technical sales support team of any research-based company in Australia. We are there to assist you should problems ever arise. Ensysytx has eleven specialists in the field, with people located right around Australia, all qualified pest management professionals. Plus you have the support of our Australian laboratory complex for soil testing, chemical analysis, etc.

Ensysytx develops and owns all its own formulations, performs QA and batch analysis checks on all batches of chemicals and guarantees the consistent quality of all materials sold. Ensysytx is a true specialist in professional pest management for the urban environment.

Our dedicated, professional team are here to assist you in every aspect of your business.



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PROTHOR

THE PROTECTOR

The Professional Standard for protecting homes against termites

Innovative Formulation.	Ensysytx have taken the formulation of imidacloprid as a termiticide to the next level. With a micro-fine suspension concentrate ensuring particle sizes of less than 5 microns for better soil penetration and viral transfer. Prothor is also blended to protect it better from degradation in your vehicles. And our independent soil treatment studies, long-term product stability studies and University trials to prove non-repellence all support the innovations of the Ensysytx formulation.
Prothor Termite Defence Zone™.	When applied to soil at recommended concentrations, Prothor is undetectable by termites as they tunnel through it. Since termites can't detect Prothor treated soil, they can't avoid it. And, when termites do tunnel in soil treated with Prothor, they are killed by their contact with Prothor.
Prothor Viral Effect™.	<p>When termites unknowingly tunnel through Prothor treated soil, they accumulate Prothor on the outside of their bodies. Prothor does not immediately kill termites exposed to it. So when a termite is exposed to Prothor treated soil, the delayed toxicity of Prothor allows for a period of time after exposure to Prothor during which a Prothor contaminated termite can interact with non-exposed termite nestmates.</p> <p>Because termites habitually clean or groom each other as part of their social behaviour, termites that clean termites recently exposed to Prothor are themselves secondarily exposed to Prothor and killed. This transmission of Prothor from termite to termite which cannot be detected or avoided by termites is referred to as the Prothor Viral Effect™. And it doesn't stop there.....</p> <p>Termites are cannibals and when a termite dies their nestmates quickly eat them. Because the cannibal nestmates are unaware of the presence of Prothor on the dead nestmate they are eating, the nestmates are killed, thereby multiplying the effects of Prothor. What began as the exposure of a small number of colony members to Prothor becomes a nightmare for many members of the colony.</p>
Prothor Defence Shield™.	The active ingredient in Prothor has some very special and unique soil binding properties. Chemists call these special properties Hysteretic Binding . This unique chemistry means that Prothor is relatively slow to bind to soil particles, but once it does bind, it grips very tightly. This means better dispersion of the Prothor through the soil when it is applied. But when Prothor finally stops moving, it grips the soil particles around it tightly to ensure that your Prothor Termite Defence Zone remains in place for a long time; to keep on killing termites. This Hysteretic Binding effect is important because it ensures that the Prothor Termite Defence Shield created around your home is as complete and continuous as possible.
Prothor is undetectable.	Some soil treatment termite control products don't kill termites, instead they repel them. These products are effective when applied in a perfect and continuous gap-free termite barrier, but if there are any gaps in the barrier through which termites can enter, its 'hello termites'.
Minimal impact on the environment and you.	Studies have shown that during applications of Prothor, airborne residue of Prothor in the structure are minimal. This means it is safe to remain at home while the Prothor Termite Defence Zone is being applied under and around your home. This is unlike some other termiticides which require you to vacate your home while they are being applied.
Prothor is easy on the nose.	In fact Prothor is almost odourless since it is a water-based product.
Micro-fine Suspension Concentrate.	Makes it easy to mix and provides for better soil dispersion. And it remains in suspension longer in your tank.
Non-sensitising.	This means no unpleasant sensations as often caused by other termiticides.
Safe to plants and rapidly metabolised.	Indeed the active in Prothor is widely used on agricultural food crops, in orchards, nurseries and in products applied directly to pets.
Approved for post-construction and pre-construction treatments.	For pre-construction Prothor should be applied through a reticulation system.
High Performance Guaranteed.	So you can feel totally confident that you have a global, research-based company standing beside you should any challenges arise.

YOUR ENSYSTEX GUARANTEE

If Prothor fails to meet or exceed your expectations, return the unused portion of the container, at our expense, and we will issue you with a full refund.

If you have a challenging situation, Ensysyex guarantees to investigate the matter with you and, where required, send one of our trained technical support specialists to visit the site with you.

Prothor is manufactured to the highest standards of quality. All ingredients and batches are tested to guarantee you a reliable, superior quality product.

Prothor always uses the highest quality materials to ensure optimal efficacy and safety.

PROTHOR PRODUCT DETAILS

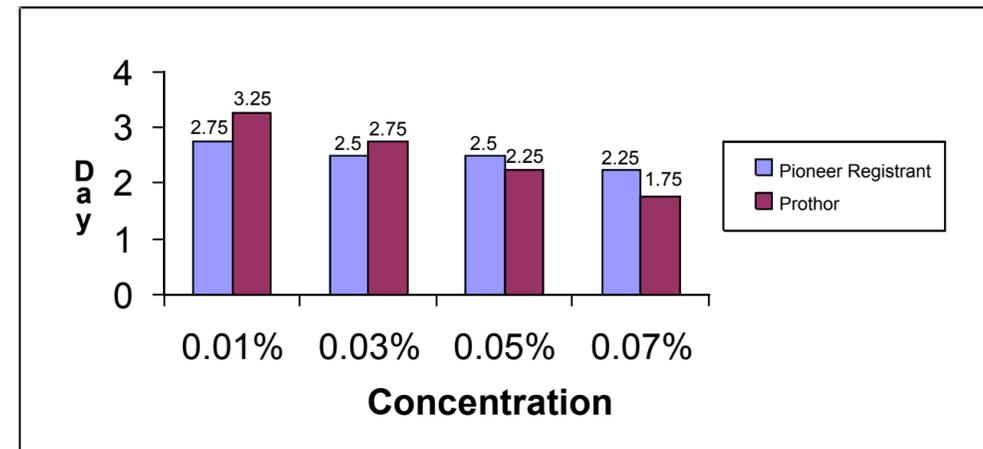
Active Ingredient: 200g/L imidacloprid.
 Insecticide Group: Nicotinoid.
 Formulation Type: Water-based, micro-fine suspension concentrate.

PERFORMANCE

Prothor was evaluated in series of University trials against a positive control, i.e. a product that was already registered in Australia.

MORTALITY ON TREATED FILTER PAPER

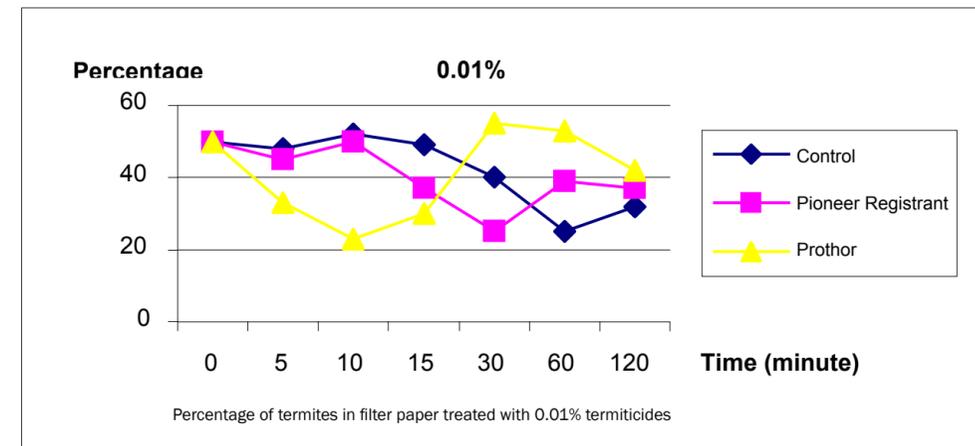
The mortality rates of termites that were exposed to treated filters is shown below. Fifty percent mortality was obtained within 6 hours after exposure. At 0.01%, both products killed all the termites within 3 days. This slow rate of kill is important as it ensures that the Prothor Viral Effect affects more termites.



PERFORMANCE (continued)

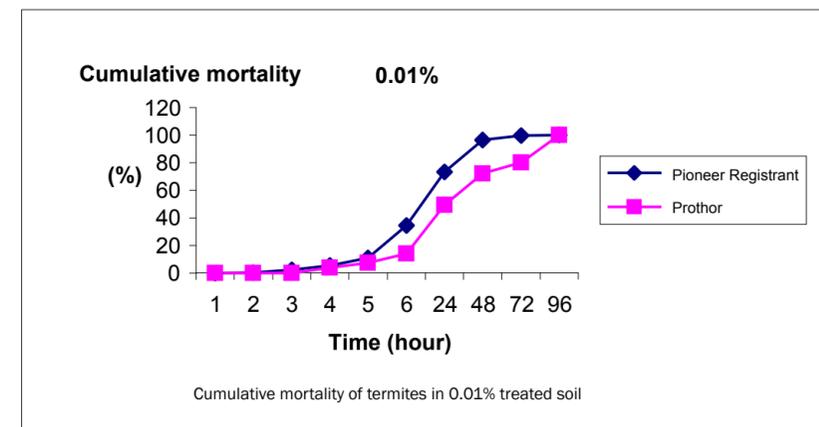
REPELLENCY

Both chemicals did not seem to repel the termites. The proportion of termites in contact with both the treated and untreated filter papers was not significantly different. Even though there were some reactions towards the treated filter paper in the first few minutes, the termites became habituated after two hours of exposure. This was reflected by the movement of termites within the test arena. All treatments, including the control did not show any significant pattern of termite movement.



MORTALITY ON TREATED SOIL

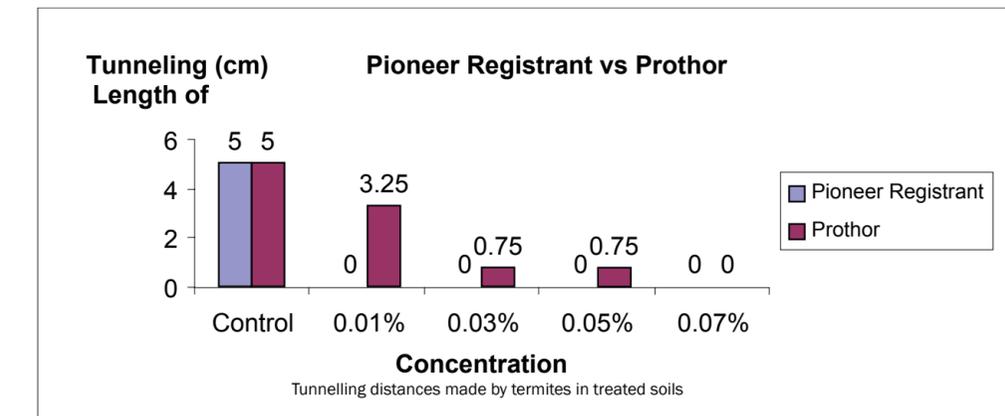
A similar trend of termite mortality was observed from treated soils compared with that of termites exposed to treated filter papers. Both chemicals killed the termites in a similar trend. One hundred percent mortality was obtained within 3 days.



PERFORMANCE (continued)

TUNNELLING ACTIVITY

The result of the tunnelling is shown below. The termites were able to penetrate a distance of 3.25 cm in soil treated with 0.01% Prothor and 0.75cm in soil treated with 0.03% and 0.05% of Prothor. The termites, however, did not make any tunnelling in soils that had been treated with the Pioneer Registrant. No tunnelling was also recorded from soils that had been treated with 0.07% of both chemicals. All termites died within the period of the experiment.



The conclusion of the University report advised "Efficacy of imidacloprid from Ensysyex and the Pioneer Registrant in controlling subterranean termites, *Coptotermes gestroi* was comparable. Both chemicals did not repel the termites and killed the termites within the same period of exposure time. However, when they were forced to tunnel in columns of treated soils, deterrence was observed. The termites were able to tunnel in soil that had been treated with 0.01% of Prothor. This indicates that the repellency of Prothor towards the termites was possibly less than the Pioneer Registrant.

This indicates that Prothor will perform at least as well as, if not better than other products since it is less repellent to termites.