

**CHEMICAL FREE
ECO-FRIENDLY
TERMITE
SECURITY
SYSTEM
FOR ANY
BUILDING**



**INSTALLATION
MANUAL**

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A Chemical Free Physical Barrier

- ARMORTHOR Termite Security System is exceptionally tough and will not be damaged by normal building work practices.
- **No Installer Licensing Requirements.**
- **Environmentally friendly.**
- **User-friendly, flexible to install.**
- **Suitable for almost all building designs.**

General

ARMORTHOR Termite Security System gives you long-term termite protection.

ARMORTHOR Termite Security System has been fully researched and developed.

This Manual details how ARMORTHOR Termite Security System can be installed.

What is ARMORTHOR?

ARMORTHOR Termite Security System is made out of Ultra Marine Grade Aluminum, which is robust and able to withstand harsh treatment. ARMORTHOR Termite Security System aluminum is a special Flex-Temper form which allows it to be molded into any required shape.

ARMORTHOR Termite Security System is even suitable for severe marine environments .

ARMORTHOR Termite Security Collars

ARMORTHOR Termite Security Collars provide the premium solution for chemical free protection of pipe and other utility penetrations in new buildings against termite entry.

ARMORTHOR Termite Security Collars are manufactured in pre-pressed sizes. In addition, Collars may be made to size by the installer to suit irregular pipe sizes.

Termite Proof Flex-Gel

Termite Proof Flex-Gel Is used to secure the ARMORTHOR Termite Security Collars to a concrete slab. It is a neutral cure, 100% gel rubber sealant and glue based on silicone. It cures at room temperature to provide excellent resistance to termites, weathering, ultraviolet radiation, vibration, moisture, ozone, temperature extremes, airborne pollutants, and many cleaning detergents and solvents. It is grey in color and non-slumping.

Statement of Quality

The ARMORTHOR Termite Security System, has been designed to achieve a service life of 50 years during which period the ARMORTHOR Termite Security System, including its constituent components, is expected to maintain efficacy and functionality as a physical termite entry barrier.

The components used in the manufacture of the ARMORTHOR Termite Security System have been selected for their intended purpose and are expected to operate in accordance with their specification for the duration of the design life of the ARMORTHOR Termite Security System.

Why Use ARMORTHOR?

Consistency

ARMORTHOR Termite Security System is an engineered solution, manufactured to strict quality guidelines.

Flexible

ARMORTHOR Termite Security System is a flexible system that may be installed in many difficult and complicated situations including multiple penetrations.

Tough

ARMORTHOR Termite Security System is exceptionally tough. Tin snips are required to cut ARMORTHOR. Blunt objects, workmen's boots, etc. have little chance of penetrating. If a hole is produced it is easily repaired.

Long Lasting

ARMORTHOR System will remain in place protecting a property for its economic life.

Resist Environmental Degradation

Unlike chemical based termite control solutions, ARMORTHOR Termite Security System is a totally chemical free physical termite barrier that does not suffer from environmental degradation.

Environmentally Friendly

Because it is chemical free, ARMORTHOR Termite Security System cannot harm the environment.

About Termites

Termites are the cause of the greatest economic losses of timber in service.

How Termites Attack Homes. The most destructive species live in large underground nests, with some species' nests containing more than a million timber destroying termites. The problem arises when a nest matures near a home. Homes tend to provide natural shelter and food for the termites. The gallery system of a single colony may exploit food sources over as much as one acre, with individual galleries extending up to 75 yards to enter homes, where there is a smorgasbord of timber to feast upon. Even concrete slabs do not act as a barrier; termites can penetrate through cracks in the slab to gain access. They also build mud tubes around the slab to gain access to above ground timbers.

Termite Damage. Once in contact with timber, termites excavate it, often leaving only a thin veneer on the outside. If left undiscovered, the economically important species can cause many thousands of dollars damage.

Subterranean Termite Ecology. Termites are social insects usually living in large underground nests. In rare instances they may be in above ground areas within the property. They tunnel underground to enter the building and then remain hidden within the timber making it difficult to locate their presence. Where timbers are concealed, as in most modern homes, it makes it more difficult to locate their presence. Especially if landscapes have been built up around the home and termite barriers are either not in place or poorly maintained.

Termite Biology. Termites are social insects that work and live together in groups called colonies. Each colony contains several castes which differ in body shape, behavior and tasks performed.



The **king and queen** mate and control the entire colony. The queen has an enlarged abdomen for the purpose of laying millions of eggs. She essentially becomes an egg laying machine. These eggs hatch into the nymphal stage and through a series of molts develop into one of the adult castes.

The **worker** caste has the largest number of individuals within the colony and is responsible for building the nest, tending eggs and young termites, gathering food and feeding those castes that are unable to feed themselves. Worker termites are wingless, blind and do not reproduce. Workers perform almost all the tasks in the colony except for defense and reproduction.

The **soldier** caste can be distinguished from other castes by its head. The head of the soldier caste is large, dark and usually has mandibles (jaws). Soldier termites defend the colony against predators such as ants and are also unable to reproduce.



The **winged reproductive** caste are the potential future kings and queens of new colonies. This caste has eyes and wings, and usually leaves the parent colony in large swarms. They do not fly very far before shedding their wings where they then tunnel into the ground to form a new colony.

ARMORTHOR Termite Security System

ARMORTHOR Termite Security System is a flexible termite protection system which can be used in conjunction with other termite exclusion methods.

It is particularly used in conjunction with a concrete slab. The slab in this case forms part of the termite barrier with ARMORTHOR Termite Security System protecting the high risk termite attack areas such as points where pipes and other utilities penetrate the slab.

Health and Safety

ARMORTHOR Termite Security System poses no risk to the homeowner, construction workers or the environment. It is ideal for use in sensitive environments and in allergy-free housing.

Annual Inspections

All termite management systems, including Armorthor Termite Security System, should be inspected at least once annually for any failures to exclude termites from the structure.

ARMORTHOR Installation

It is the responsibility of the ARMORTHOR Termite Security System Installer to coordinate with the Builder to ensure that the installation of ARMORTHOR is performed correctly and in a coordinated manner.

Builder's Responsibility

The builder must ensure that:

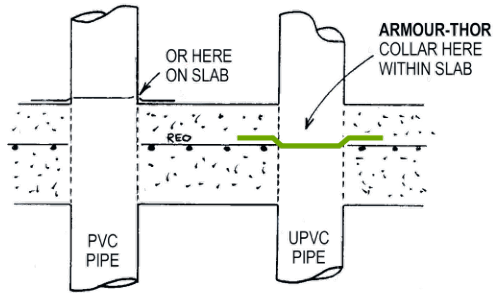
1. All service pipe penetrations are located in their final position before ARMORTHOR Termite Security System is installed.
2. They are aware of the placement requirements for ARMORTHOR Termite Security System.
3. Once installed, ARMORTHOR Termite Security System must not be moved without consulting with the ARMORTHOR Termite Security System Installer.
4. They inform the ARMORTHOR Termite Security System Installer of any damage to, disturbance of, or misalignment of the ARMORTHOR Termite Security System after its installation.

Installation Process

1. Ensure that all pipe and utility penetrations are installed in their final positions.
2. If the tops of the service pipes to be protected are sealed with tape, the tape must be removed prior to installing Collars, and then replaced upon completion of the installation.
3. ARMORTHOR Termite Security System is installed in accord with the diagrams in this Manual.

When installed in accordance with this Manual, ARMORTHOR Termite Security System should provide protection against the entry of subterranean termites where it has been installed provided all other aspects of the total system are approved and correctly installed.

ARMORTHOR Termite Security Collars



ARMORTHOR Termite Security Collars are used as a physical termite barrier around plumbing pipes and electrical conduits that penetrate through concrete slabs. They come in a range of sizes, and can be adapted to suit an even wider range of pipe sizes.

Since the collars for pipe penetrations are made from Flex-temper aluminum they can be molded into various shapes and can fit the tightest of situations, for example, two pipes side by side.

The inner flange on collars is able to be cut and expanded to enable it to be fitted over flanged ends of pipes. Once fitted over the flange, the collar is pressed back into its original shape and fastened onto the pipe with Termite Proof Flex-Gel.



IN- SLAB FIXING

1. Select the correct sized ARMORTHOR Termite Security Collar, ensuring a neat fit is achieved, **with the inner flange edge facing down.**
2. The Collar is positioned at the midway height of the to be poured slab (see diagram to the left).
3. Seal between pipe and the collar with Termite Proof Flex-Gel. Ensure all surfaces are clean and allow adequate time for the Flex-Gel to cure before proceeding with the concrete pour.



ON- SLAB FIXING

1. Select the correct sized Collar. Ensure a neat fit is achieved **with the inner flange edge facing up**.
2. Ensure the concrete is sound, free of dust and any curing compounds.
3. Wipe all concrete surfaces clean with methylated spirits.
4. Apply Termite Proof Flex-Gel to the base of the pipe, the inner flange edge of the Collar and the underneath of the Collar.



Electrical Conduits

Use ARMORTHOR Termite Security Collars around all electrical conduits penetrating the slab.



Horizontal Penetrations

A horizontal penetration is a right-angle insertion into the slab. It usually occurs where a service penetration goes through an edge beam or structural beam. This may allow concealed termite entry through any hollow building materials holding the service penetrations in place (e.g. copper or plastic pipe). All such hollow structures must be replaced or removed before installing ARMORTHOR Termite Security Collars.

Recommended Equipment

- Coarse bristle brush to clean any foreign substance off the concrete substrate. All concrete surfaces need to be flat, clean and tidy for gluing.
- Tube applicator/gel gun with trigger to squeeze/push Termite Proof Flex-Gel out of the tube. Use a heavy-duty applicator.
- Tin snips to cut aluminum.
- Hand toweling or waste rags.
- PPE equipment - hardhat, safety glasses and safety boots to satisfy site safety requirements.