

Maryland is geographically located in an area with high termite populations. Termites are destructive when they infest a home or building, often damaging structural components such as walls and floor joists, sill plates and flooring. Their movement may be concealed by tunnels and wall voids, and serious structural damage can often occur before a termite infestation is discovered.

Termite prevention is key to avoiding costly structural repairs and replacement costs. Most structures in Maryland are treated against termite infestations during the initial construction process. These preventative termite treatments are commonly referred to as pre-treatments or "pre-treats."

A pre-treat is intended to create a uniform barrier of termiticide between termites in the soil and wooden components of the building. To insure a uniform barrier, termiticide labels prescribe the volume, concentration and locations for the application of the termiticide. This means relatively large volumes of termiticide solution are needed to adequately treat the soil in and around the foundation walls, support piers and soil areas to be covered with concrete (slab areas). It is a violation of State and Federal Pesticide Laws to apply termiticides at concentrations or volumes less than label prescribed rates. Violation of Maryland's Pesticide Applicator's Law can result in suspension or cancellation of the Pest Management Professional's (PMP) license and/or

a civil penalty of $2,500 for a first violation and $5,000 for each subsequent or repeat violation. It is important for builders and PMP's to communicate effectively for a proper pre-treat to occur.

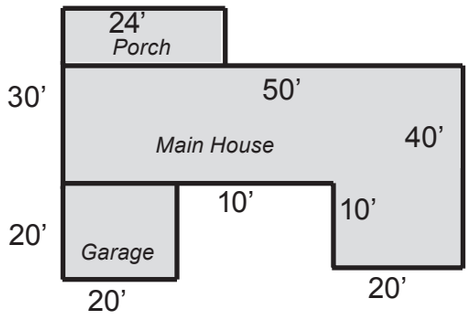
The cost of termite pre-treatments have risen considerably over the last 20 years due to an increase in the price of chemicals, labor, fuel, vehicle maintenance, equipment, office overhead, insurance, employee salaries and benefits. Treating a 20' x 40' house can cost $300 to $500 in chemical costs alone. Cost can also vary depending on the type of foundation, construction materials and structural elements.

There are two basic forms of construction with specific pre-treat instructions:

Poured Slab - a proper termite pre-treatment requires the PMP to make a minimum of two, sometimes three, trips to the job site. All termiticide labels require the application of one gallon of dilute termiticide per 10 square feet of slab area. If the fill is gravel or other coarse aggregate, additional termiticide is required. Additional termiticide is also required if there are bath traps or other openings in the slab.

Pre-treats include structures built adjacent to the foundation, such as porches and patios. Ideally, the builder should notify the PMP before any additions are poured and after final backfill is completed. If additions are not treated prior to pouring, the slab area should be drilled adjacent to the foundation and treated when the perimeter is treated.

Recommended Treatment For Poured Slab Construction With Surrounding Block Wall and One Foot Interior Fill



TRIP 1

A. Treat soil under main slab before concrete is poured. 50'x30' = 1500 ft² + 20'x10'= 200 ft²: Total = 1700 ft² treated at 1 gallon per 10 ft² = **170 gallons**.

B. Treat soil under garage slab before concrete is poured. 20'x20' = 400 ft² treated at 1 gallon per 10 ft² = **40 gallons**.

C. Treat inside foundation wall (expansion joint under main slab). 30'+50'+40'+20'+10'+10'+20' = 180 linear feet treated at 4 gallons per 10 linear feet = **72 gallons**.

D. Treat soil in the garage expansion joint (three sides, in front, have no block wall and only a garage door). 20'+20'+20' = 60 linear feet treated at 4 gallons per 10 linear feet = **24 gallons**.

E. Treat masonry voids (hollow block wall). 20'+50'+40'+20'+10'+10'+20'+20'+20' = 220 linear feet treated at 2 gallons per 10 linear feet = **44 gallons**.

TRIP 2

Treat soil under expansion joint of rear attached porch slab before additional concrete is poured. 24 feet treated at 4 gallons per 10 linear feet = **9.6 gallons** (approximately 10 gallons).

Note: This area may also be treated on trip 3, but the attached slab would have to be drilled to allow the chemical to be applied in the proper location.

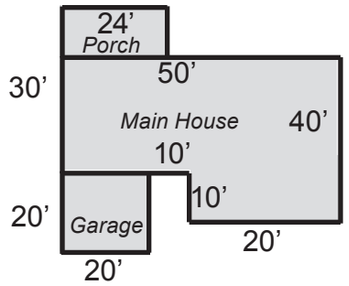
TRIP 3

Treat soil adjacent to the outside foundation wall. This should be done after all sod and landscaping activities are complete. 20+30+26+40+20+10+10+20 = 176 linear feet treat at 4 gallons per 10 linear feet = **70.4 gallons**.

TOTAL FOR JOB = 350+10+70 = 430 GALLONS

Crawlspace and/or Basement Foundations - A proper termite pre-treat of a crawlspace or basement home requires the placement of a continuous chemical barrier on both sides of the foundation (to the top of the footer or to a minimum of 4' depth). The application rate is calculated as 4 gallons per 10 linear feet. If the foundation is made of hollow blocks, an additional 2 gallons per 10 linear feet is added. Other structural elements of the building must also receive treatment in the soil surrounding them (support piers, sewer lines, plumbing and other utilities).

Recommended Treatment of Crawlspace Construction



Imagine that this house has a single brick foundation wall, concrete driveway, concrete attached slab and eighteen 16"x8" block piers.

TRIP 1

Treat inside foundation wall and piers.

A. Inside foundation wall 30'+50'+40'+20'+10'+10'+20' =180 linear feet treated at 4 gallons per 10 linear feet = **72 gallons.**

B. 18 piers treated at about 2 gallons per pier = **36 gallons**.

Note: The gallon approximation is derived from treating the inside 16" masonry void at 2 gallons per 10 linear feet and the soil adjacent to the pier (16"+16"+8"+8") at a rate of 4 gallons per 10 linear feet: This equals 1.86 gallons or approximately 2 gallons.

This example is based on the most common practice for treating crawlspace homes. However, it is recommended that only the masonry voids be treated at this point in construction. The soil adjacent to the walls and piers need to be treated at a later point in construction. This would prevent disturbance of treated soil by workers during construction and prevent unnecessary pesticide exposure to workers on site.

TRIP 2

Treat garage slab and attached porch.

A. Attached slab - 24 feet of expansion joint at 4 gallons per 10 linear feet = **9.6 gallons**.

B. Garage slab - 20'x20' = 400 square feet at 1 gallon per 10 square feet = **40 gallons**.

C. Garage expansion joint = 20'+20'+20' = 60 linear feet at 4 gallons per 10 linear feet = **24 gallons**.

TRIP 3

Treat soil adjacent to outside foundation wall after all landscaping activities are complete.

A. 176 linear feet at 4 gallons per 10 linear feet = **70.4 gallons**.

TOTAL FOR JOB = 252 GALLONS.

PRETREAT CHECKLIST

- ✓ Make sure the company hired to do the pest control work has a valid business license issued by the Maryland Department of Agriculture (MDA).
- ✓ Make sure the technician performing the pretreatment has a valid employee identification card issued by MDA.
- ✓ The company vehicle should be clearly marked with the company name and MDA business license number.
- ✓ Be familiar with the terms and conditions of the pre-treat contract.
- ✓ The company must provide the customer with the name of licensee, MDA pesticide business license number, National Poison Center phone number, common name of pesticide or active ingredient applied and an original copy of the product label or portion of the label containing precautionary statements regarding hazards to humans or animals, environmental hazards and post application information.
- ✓ During the construction phase, up to and including final grading, it is critical that the builder and PMP maintain timely communications. PMP's need adequate notice in order to ensure proper soil treatments around foundations, walls, piers, under slabs, etc.
- ✓ Be aware of soil conditions at the job site. Liquid termiticide labels prohibit the application of the product if soils are frozen or saturated.

For more information, please contact the Maryland Department of Agriculture, Pesticide Regulation Section at: 410-841-5710.

MARYLAND
Wes Moore
Governor

Aruna Miller
Lt. Governor

MARYLAND DEPARTMENT OF AGRICULTURE
Kevin Atticks
Secretary

Steve Connelly
Deputy Secretary

02/25 KL

Pub. No.: MDA 14-01-06

Proper Application of Pre-Construction Termite Treatments



A Guide for Builders, Pest Management Professionals and Homeowners

MARYLAND DEPARTMENT OF AGRICULTURE
PESTICIDE REGULATION SECTION

50 HARRY S TRUMAN PARKWAY
ANNAPOLIS, MD 21401

Phone: 410-841-5710
Fax: 410-841-2765
pest.reg@maryland.gov