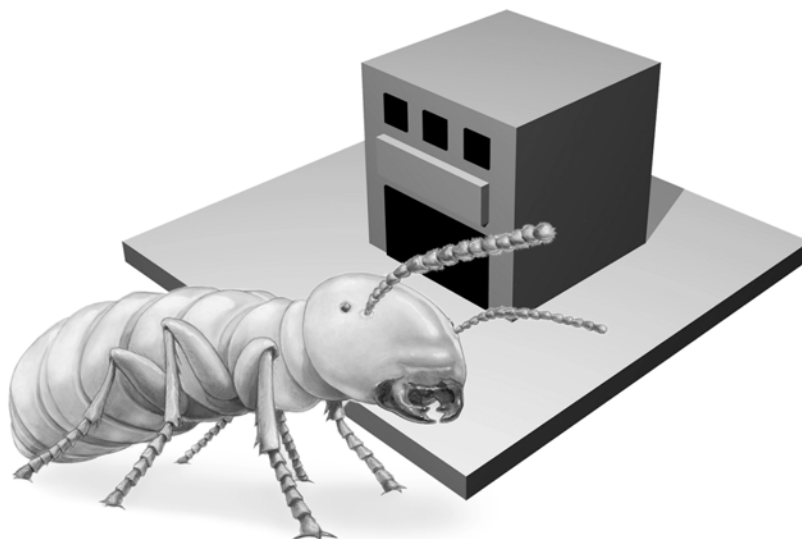


**Bora-Care[®]
Commercial
Technical
Bulletin**

**NEW CONSTRUCTION TREATMENTS
IN COMMERCIAL STRUCTURES
FOR THE PREVENTION OF**

Subterranean Termites



BORA-CARE® COMMERCIAL TECHNICAL BULLETIN

NEW CONSTRUCTION TREATMENTS IN COMMERCIAL STRUCTURES FOR THE PREVENTION OF SUBTERRANEAN TERMITES

(ALWAYS READ LABEL COMPLETELY BEFORE ANY APPLICATIONS.)

BORA-CARE Commercial Termiticide is a highly effective, long-lasting pesticide that can be used as a primary new construction treatment against subterranean termites. Rather than creating a toxic barrier in the soil surrounding a structure, BORA-CARE is applied directly to the structure, creating a barrier and preventing entry on cellulosic and non-cellulosic surfaces (such as concrete and plastic). BORA-CARE provides a continuous barrier of protection against future termite infestations when applied to concrete, masonry, metal/steel, wood, pipe penetrations, bath traps and other subterranean termite entry points.

BORA-CARE was introduced as a wood preservative to the pest control industry in 1990. In 1999, the U.S. Department of Housing and Urban Development (HUD) allowed the use of BORA-CARE as a new construction, stand-alone, termite preventative treatment. Today, points are given when BORA-CARE Commercial is used in NAHB Green, LEED and EarthCraft green building programs. BORA-CARE Commercial is also among the field-applied wood treatments that can be used per section R320.2 of the updated 2006 International Residential Code.

BORA-CARE Commercial may be used on all cellulosic materials including wood, plywood, particle board, paper, oriented strand board (OSB), cardboard and wood composite structural components. It may also be applied to concrete block, metals, PVC plumbing pipes, bath traps and other non-cellulosic materials. When a 1:1 solution of BORA-CARE is applied as a full continuous horizontal and vertical application in a two-foot band to all structural wood, foundations, bath traps, pipe protrusions and other areas, it will prevent subterranean termites from damaging wood or "tubing" over treated foundations or other treated components to reach untreated areas of the structure.

HOW BORA-CARE COMMERCIAL COMPARES TO OTHER TERMITICIDES

BORA-CARE Commercial is packaged as a liquid concentrate that contains 40% Disodium Octaborate Tetrahydrate (DOT) active ingredient. BORA-CARE Commercial is water-soluble and incorporates a patented glycol mixture that enhances penetration and absorption of DOT into wood and creates a barrier on concrete and other non-cellulosic materials. BORA-CARE Commercial is a low toxicity product that does not adversely affect the

environment. Since BORA-CARE Commercial is only applied to the structure, less pesticide is required. A 10,000 square foot commercial building may need only four to six gallons of BORA-CARE Commercial solution (two-three gallons of concentrate) for the labeled 24-inch band new commercial construction treatment. In addition, BORA-CARE Commercial has very low odor and the treated materials can be handled when dry. Due to its outstanding performance as a preventative treatment, ease of application, fewer environmental concerns for workers and applicators and ease of scheduling, BORA-CARE Commercial new construction treatments are used in place of soil pretreatments.

WHY BORA-CARE COMMERCIAL WORKS

BORA-CARE Commercial provides double protection by acting as both a toxicant via ingestion and a deterrent to termite tubing on surfaces. This means that termites are kept out of structures, preventing structural wood damage. Compared to other borate products, BORA-CARE Commercial and BORA-CARE provide the highest level of active ingredient against termites, and are the only borate-based termiticides with long-term efficacy studies and application history against subterranean termites.

NEW CONSTRUCTION TREATMENTS WITH BORA-CARE COMMERCIAL

Commercial structures may be treated with BORA-CARE Commercial as a primary treatment during the construction process when access to all structural members, concrete and foundations are available. Normally this is at the "dried-in" stage of construction prior to installation of drywall, insulation, mechanical systems and electrical wiring. Apply BORA-CARE Commercial to concrete foundations, metal/steel studs and sills, pipe protrusions, expansion joints, abutting slabs, cracks in slabs, bath traps, bare wood, plywood, particle board and other cellulosic materials where an intact water repellent barrier, such as paint, stain or sealer is not present and other areas or surfaces that may allow termite entry.

In new construction applications for the prevention of subterranean termites, structural wood is defined as only wood needed for the basic building structure, as found in the dried-in stage of construction, including wood in direct contact with foundations, interior and exterior wall sill plates, wood studs, wood or cellulosic sheathing, floor joists and sub-flooring.

NOTE: BORA-CARE Commercial is not currently registered in the State of Florida.

CALCULATING THE AMOUNT OF BORA-CARE COMMERCIAL REQUIRED FOR COMMERCIAL NEW CONSTRUCTION TREATMENTS

BORA-CARE Commercial calculations are based on board feet of lumber and surface area of concrete and non-cellulosic building materials. Measurement of the structure is key to determine the amount of BORA-CARE Commercial solution required for label application. One accurate and fast method to accomplish this is to use a measuring wheel to measure the linear footage of outside foundations on all structures, concrete block foundation walls, expansion joints and the linear footage of interior stud walls.

To determine the amount of BORA-CARE Commercial needed, check the Application Rates table on the BORA-CARE Commercial label, or use the *Application Rate Chart* or the *Bora-Care New Construction Application Worksheet* found at the end of this bulletin. The Application Rate Chart lists various construction foundations and gives instructions and amounts of BORA-CARE to be used on both wood and non-cellulosic areas, and is based on registered label applications. The *Bora-Care New Construction Application Worksheet* calculates the quantity of solution needed to treat all application areas. (This worksheet is available for download as an interactive spreadsheet from www.nisuscorp.com.)

NOTE: The quantity of BORA-CARE needed for lineal or square feet of wood remains the same whether applying one application to all sides of the wood, or when applying two coats of solution to one to two sides of a wood component.

MIXING BORA-CARE COMMERCIAL

BORA-CARE Commercial concentrate must be mixed with water as a 1:1 (one part BORA-CARE Commercial concentrate to one part water), per label requirements, for all subterranean termite prevention applications.

To mix up to four gallons of BORA-CARE Commercial solution you will need the following equipment and materials:

1. A five-gallon pail
2. Water
3. Drill
4. Mixing impeller (like those used to mix paint; preferably plastic)
5. Recommended personal protective equipment, including long-sleeved shirt, gloves and eye protection.
6. BORA-CARE Commercial concentrate.

To mix a 1:1 solution, put 3/4 amount of the water required into tank and begin mechanical agitation while gradually adding the required BORA-CARE Commercial. Use remaining water to triple-rinse BORA-CARE Commercial containers, then add this to the tank solution and agitate until thoroughly mixed.

Remember: Only mix enough BORA-CARE Commercial 1:1 solution needed for that day's applications. The 1:1 solution is not to be stored in the spray tank or other container for more than 24 hours. Refer to label for specific directions.

EXAMPLE:

To mix four gallons of BORA-CARE Commercial 1:1 solution:

Pour 1½ gallons of water into a five-gallon pail. Attach mixing impeller to drill and begin agitation. Gradually pour two gallons of BORA-CARE Commercial into water and continue to mix solution. Use remaining ½ gallon of water to triple rinse the BORA-CARE Commercial container(s) and pour contents into mixing solution. Continue to mix until solution becomes clear or you do not feel resistance of any remaining concentrate. Normal mixing time may be 5-10 minutes.

Mixing tips:

If using a metal mixing impeller, do not allow the impeller to touch sides or bottom of pail. This may create small plastic chips that could clog spraying equipment. A plastic mixing impeller may be best.

Warm water may reduce mixing time somewhat, but is not required.

A backpack sprayer or a Nisus-approved unit designed for BORA-CARE applications is needed to apply the BORA-CARE Commercial solution. If larger amounts of BORA-CARE Commercial solution are needed, a 10-25 gallon Nisus-approved spray unit is recommended. For best results, this unit should have good agitation for proper mixing to prevent any potential clogging of spray equipment.

Dyes and Colorants

To make it easier to see where BORA-CARE Commercial solutions have been applied, an appropriate dye or colorant may be added to the solution when diluting BORA-CARE Commercial with water. Refer to the dye/colorant product label for recommended amount to add to the BORA-CARE Commercial solution.

NOTE: It is not recommended to use a marker dye or pigment in BORA-CARE Commercial solutions on surfaces such as concrete and block that will be visibly exposed upon completion of construction and aesthetically displeasing to the builder or potential building occupant or applied to surfaces that are to be painted.

Where dye/colorant application is required by individual state rules but not used for aesthetic reasons in certain areas, be sure to document where and why a dye/colorant was not applied. Dye/colorant color or darkness does not indicate the amount or concentration of BORA-CARE Commercial applied. If dye/colorant is applied to non-target areas, be sure to clean with water immediately.

TREATMENT APPLICATION TECHNIQUES FOR DIFFERENT STRUCTURES

TREATMENT FOR COMMERCIAL SLAB STRUCTURES

A commercial slab new construction treatment with a 1:1 solution of BORA-CARE Commercial consists of creating a full continuous horizontal and vertical barrier by treating all areas that termites could come into contact, including structural wood and concrete foundations. This includes structural wood of both internal and external walls (sill plates, wall studs and exterior wood sheathing), foundations (concrete surfaces), bath traps, pipe protrusions, steel stud walls and other areas. All interior and exterior walls must be treated to prevent termite entry due to cracks that may occur in the slab.

Stud Walls (wood and steel): All accessible sides (3-4 sides) of wood and metal studs are treated once to the point of wetness, starting at the sill plate and moving vertically to a height of 24 inches high. If access to a wood stud is limited to one or two sides, then spray the accessible sides with two coats of solution, waiting 20 minutes between applications. Wood sills are sprayed with two coats of BORA-CARE Commercial 1:1 solution, extending horizontally out on the slab two to eight inches from the sill, and waiting 20 minutes in between coats.

Steel studs need only to be sprayed once regardless of the number of accessible faces. Steel sills need only to be sprayed once with a 1:1 solution extending horizontally out on the slab two to eight inches.

To determine the amount of BORA-CARE Commercial needed to treat all sill plates and studs, measure the linear footage of all interior and exterior stud walls. Once this is obtained, you can determine the amount of BORA-CARE Commercial required by checking the "Slab Construction" section of the Application Rate Chart. The chart states that one gallon of BORA-CARE Commercial solution will cover 200 linear feet of all stud walls with a 24-inch vertical application (excluding sheathing). This includes the application of solution 2-8 inches out horizontally on the slab from the sill or plate.

All Exterior Sheathing: Both sides (interior and exterior) of the bottom 24 inches of exterior sheathing are treated with one coat of 1:1 BORA-CARE Commercial solution to provide a continuous vertical barrier. If the sheathing has only one accessible side due to construction materials blocking access to the other side of the sheathing surface, then two coats on the available surface are required. Be sure to document such applications.

The chart section for "Exterior Sheathing" indicates that 1 gallon of BORA-CARE solution will cover 400 square feet of sheathing. This includes one vertical application of solution on each side or two applications on one side.

Concrete Block or Poured Concrete Foundation

Walls: Concrete, cinder block or other non-cellulosic exterior walls must be treated with a 1:1 BORA-CARE Commercial solution to a height of 24 inches up from the concrete slab onto the interior surface of the wall. Treat the exterior surface of the wall up 24 inches if the surface is being covered by brick or sheathing material.

One gallon of BORA-CARE Commercial will cover 400 square feet of block area. To determine the square feet to be treated, measure the linear footage of the block wall and multiply by two. See *Application Rate Chart* for more information.

NOTE: BORA-CARE Commercial has been tested with applications under and over numerous common concrete paints and coatings and no adverse reactions have been found. If the contractor is using paints or coatings that may not be a common product test the compatibility prior to application.

Bath Traps and Pipe Penetrations: Bath traps, pipe penetrations and the slab areas around both must be treated to protect from termite entry into the structure.

All bath traps are to be treated horizontally at the rate of 8-16 ounces of BORA-CARE solution per square foot of bath trap area. Treat a 12" band on slab around bath traps to create a continuous horizontal barrier.

Treat all pipe and plumbing penetrations to a height of two feet on pipe and plumbing penetrations. Extend treatment at least 6 inches out horizontally from penetrations onto slab surface for any penetrations that are free-standing and not associated with any treated structural wall. Apply 2-4 ounces of solution per pipe penetration depending on the diameter of the pipe (See Rate Chart for specific information).

NOTE: All pipe and plumbing solutions located in structural wall areas are already included in the

normal solution application calculations to structural wall components and do not require additional treatment as described in this section.

Expansion Joints and Abutting Slabs: Treat two feet up on any interior foundation block or poured concrete walls associated with or next to any expansion joints, abutting slabs or other points of termite entry. Treat all expansion joints and abutting slabs areas to cover at least 6 inches out from both sides of the joint, if available. During application, direct treatment solution into the joint or penetration site. The same application is applied to any areas around "control joints" cut into the slab. See Application Rate Chart for application amounts.

Cracks In Slab: If any cracks are noticed in the slab during application, treat the crack by extending treatment 8 to 12 inches out on each side of the visible crack. See Application Rate Chart for amounts of solution for these areas.

COMMERCIAL CRAWL SPACE OR BASEMENT CONSTRUCTION

The *Application Rate Chart* simplifies calculations by combining four construction elements (sill plate, floor joists, subfloor and header or band joist) into one unit that can be measured in linear feet. Measuring the outside perimeter of the building (or all sill plate areas resting on foundation walls) is the first step. The chart states that 1 gallon of BORA-CARE 1:1 solution will cover 100 linear feet of foundation sill plates, floor joists, header and subfloor listed above in a two-foot band. To obtain the amount of BORA-CARE solution needed, divide the total linear feet of the outside perimeter by 100.

To create a full continuous horizontal and vertical barrier in crawl space or basement construction, a BORA-CARE new construction treatment will include treating the following:

Perimeter Elements: This is composed of the foundation sill plate, header or band joist, floor joints and subfloor.

Foundation Sill Plate: Treat horizontally with two coats (assuming only 1-2 sides of the sill plate are accessible) of 1:1 BORA-CARE solution on the foundation sill plate, waiting at least 20 minutes between coats.

Header or Band Joist: Treat all accessible sides with one coat of same solution. If only one or two sides are accessible, treat with two coats of solution.

Floor Joists: Treat all accessible sides (assuming three sides are exposed) with one coat of BORA-CARE solution. Solution must be applied in a two-foot horizontal band beginning at the sill plate and extending out onto the floor joist.

Subfloor: Apply two coats of solution only on the underside of the wooden subfloor. Both applications must be applied in a continuous 24 inch horizontal band beginning at the foundation wall and extending out onto the subfloor.

Concrete-Masonry Foundation Support Piers: Treat all wood members that come in contact with the support pier with a 24 inch continuous horizontal barrier. This includes the subfloor, floor joists and any other wood in contact with the support pier. To obtain the amount of BORA-CARE solution needed, multiply the number of piers by eight and divide by 100.

The bases of all concrete/masonry support piers are to be treated 24 inches up from the ground. Measure the linear footage of concrete-masonry foundation support piers and multiply by 2. Treat this area vertically two feet high from the sill or slab at a rate of 1 gallon of solution per 400 sq. ft. of surface area.

Crawl Space & Basement Concrete-Masonry Wall Foundations: Measure all concrete-masonry foundation walls. Treat all interior concrete-masonry wall surfaces 24 inches vertically from the basement slab or crawl space soil. If a slab is present in the basement or crawlspace, treat 2-8 inches out onto the slab surface. Treat at the rate of 1 gallon (1:1) solution per 400 square feet of treated surface area.

Exterior Wall Treatments: To complete the two-foot (24-inch) vertical continuous barrier treatment required the exterior walls must be treated to a height of 12" vertically from the subfloor.

After application to the perimeter elements (sill plate, header and subflooring from within the basement or crawlspace and comprises the first 12" of the continuous 24" band treatment), vertically treat an additional 12 inches above the subfloor/box header/sill onto the exterior foundation walls, to include stud walls, sheathing and sill plate located above the sub-floor. Treat with one coat of BORA-CARE Commercial 1:1 solution on both sides of sheathing (or two coats on the interior side of sheathing if both sides are not accessible). Apply one gallon of a 1:1 BORA-CARE Commercial solution to 160 linear feet of wood area (see *Application Rate Chart*).

Finished Basement Areas: Treat all interior wood stud walls, pipe penetrations and bath traps as described in the slab instructions above.

NOTE: This is in addition to the previously described Perimeter Elements and in addition to horizontally treating the foundation sill plate, header, floor joist and sub-floor with a 24-inch treatment as described above.

Vertically and horizontally treat interior wood stud walls in contact with the basement / foundation slab as you would treat wood stud walls as described on a concrete slab at the rate of 1 gallon of solution per 200 linear feet with a 24 inch vertical band treatment (See *Application Rate Chart*).

Vertically treat all stud walls located within three inches of or touching the masonry-concrete foundation walls, to include slab sill plates, entire stud elements and top plate (or runner) attached to all solid foundation walls at the rate of 1 gallon per 50 linear feet with a (1:1) solution. Treat.

Treat all slab expansion joints, abutting slabs, pipe penetrations, control joints, bath traps and slab cracks as described under slab construction treatments.

SPECIAL APPLICATIONS

There are some special application situations where other treatments may be used. When multiple boards are bonded together to form a wide beam or girder, then they may be drilled and injected with JECTA® (a concentrated borate gel designed to be injected into thick or sealed wood components) at the point where they come into contact with the foundation.

Hidden void areas or areas where there may be structural wood that may not be accessible by normal treatment methods may be injected or treated with a foaming application in order to create a continuous vertical and horizontal barrier. Always refer to the BORA-CARE Commercial and JECTA® labels for specific instructions.

NOTE: BORA-CARE Commercial can be used in conjunction with Termistop® units installed to plumbing protrusions and into bath traps during the construction process.

DOCUMENTATION

It is very important to graph the structure and fully document the BORA-CARE Commercial application, including where dye or colorant was used (if used in part of the structure), areas that were not accessible (such as treating twice on one side of sheathing) and so forth. Where noticed cracks were treated. This documentation will be a very important tool if needed for future inspections.

CUSTOMER COMMUNICATION

It is also very important to talk to the builder to explain the treatment and educate them on conducive conditions that could cause termite infestation and the need for the pest management professional to do a thorough on site annual inspection to determine if any conducive conditions have been created. Any product is only as good as

the application, and because you are a pest management professional, we hope you will utilize this information to protect you, your company and—most importantly—the new commercial owner from potential termite infestation and damage.

APPLICATION SAFETY

Before beginning any chemical treatment, it is important to consider safety in application. According to the BORA-CARE Commercial label, the applicator must wear a long-sleeved shirt, long pants, socks, shoes, chemical resistant gloves and protective eye wear. When applying BORA-CARE Commercial in a confined area it is recommended to wear a NIOSH approved respirator when ventilation is not provided. Spills or over-spray can be cleaned with a damp cloth or absorbed with appropriate materials. (Read label for complete safety information.)

WARRANTY DISCLAIMER

Manufacturer warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. To the extent not prohibited by applicable law, **MANUFACTURER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.**

Inherent Risks of Use

The directions for use of this product are believed to be adequate and must be carefully followed. It is impossible to eliminate all risks associated with use of this product. Lack of performance or other unintended consequences may result because of such factors as use of the product contrary to label instructions, abnormal conditions, the presence of other materials, climatic conditions or the manner of use/application, all of which are beyond the control of the Manufacturer. The buyer/user assumes all such risks.

Limitation of Remedies

To the extent not prohibited by applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability or other legal theories) shall be limited to, at Manufacturer's election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

To the extent not prohibited by applicable law: a) Manufacturer shall not be liable for losses or damages resulting from handling or use of this product unless Manufacturer is promptly notified of such loss or damage in writing; and b) **IN NO CASE SHALL MANUFACTURER BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OR**

LOSSES, INCLUDING WITHOUT LIMIT, HEALTH RELATED DAMAGES OR INJURIES.

The terms of this **Warranty Disclaimer** and **Limitation of Remedies** cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Manufacturer or the seller is authorized to vary or exceed the terms of

this **Warranty Disclaimer** or **Limitation of Remedies** in any manner.

It is not intended that this product be used to practice any applicable patent, whether mentioned or not, without procurement of a license, if necessary, from the owner, following investigation by the user.



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Application Rate Chart for Subterranean and Formosan Termites

Bora-Care® Commercial New Construction Treatment

For residential new construction treatment for subterranean termites refer to Residential Technical Bulletin.

The application rates and instructions on this chart are based on standard building practices and materials. All application rates are based on Bora-Care commercial label instructions. *(Always read the Bora-Care Commercial label before application.)*

TYPE OF TREATMENT		WHEN TO USE	APPLICATION INSTRUCTIONS	COVERAGE PER 1 GALLON OF 1:1 SOLUTION
	Up From Slab On Block or Concrete Walls	To complete the 2' Vertical treatment requirement on the interior surface of structural block or concrete walls	Measure linear footage of concrete-masonry walls on exterior of building or interior concrete-masonry foundation walls associated with expansion joints and multiply by 2 to get square footage of treatment area. Apply treatment to interior surface of exterior walls and to any interior wall surfaces associated with an expansion joint. Treat walls surfaces 2' (24 inches) up from slab surface. Apply to the exterior surface of an exterior wall only if the wall surface will be covered by sheathing, masonry or brick. (also applies to walls associated with basement slabs)	400 square feet (Measure area: length X width)
	Bath Traps	To prevent entry of termites	Apply into bath trap area and extend at least 1' out onto slab surface. (Also applies to basement slabs)	8-16 ounces of solution per square foot of bath trap area
	Expansion, cold, control joints and abutting slabs	To prevent entry of termites	Apply to slab surface along all expansion joints, cold joints, control joint cuts and abutting slabs to cover at least 6 inches of slab surface on each side out from penetration site.	400 linear feet of joint (.25 (1/4) gallon to 100 linear feet of joint)
	Pipes, Conduit and Plumbing Penetrating Slab	To prevent entry of termites	Apply to all pipes, conduits and plumbing penetrating slab. Application should extend up vertically 24 inches on pipe if available. Extend treatment out at least 6 inches onto slab surface surrounding the penetration.	Apply at least 2 ounces of solution onto pipes that are 3 inches or less in diameter and 4 ounces to pipes larger than 3 inches in diameter
	Visible Crack in Slab	To prevent entry of termites	Apply to the concrete slab surface where any visible cracks may be occurring. Extend the treatment 8-12 inches out on each side of slab crack.	200 linear feet of crack (.50 (1/2) gallon to 100 linear feet of crack)
	Slab Foundation (wood & concrete)	Use as preventive treatment against termites.	Apply to sill/base plate and 24" up on studs and other wood members in contact with slab foundation. Interior or exterior walls. Apply at same application to all metal stud and sill units. Apply second coat on wood sill and to wood "married" studs where all sides of individual studs cannot be treated. Spray concrete 2"-8" horizontally out from sill or base plate. Treat all pipe protrusions within stud walls or free standing in slab 24" up from slab and extending horizontally 6" out on the slab surface. (also applies to basement slabs)	200 linear feet (Measure linear feet of stud walls to be treated)
	Sheathing (wood)		Vertically apply to both sides of exterior sheathing to point of wetness. If one side is inaccessible, apply two coats to one side at least 20 minutes apart.	400 square feet (Measure area: length X width)
CRAWL SPACE	CRAWL SPACE (wood & concrete)	Use as preventive treatment against termites.	Apply to all wood/non-wood structural components in a 24" area from exterior wall (to include sill plate, header joist, floor joists and subfloor). Apply second coat on wood sill and header joist. Apply to all wood/non-wood structural components in contact with foundation pier out 24" from foundation pier.	100 linear feet (Measure linear feet of all foundation walls & piers to be treated)
	Up From Soil (concrete)	To complete the 2' vertical treatment requirement on interior surface of foundation walls.	Measure linear footage of concrete-masonry foundation wall and also around each foundation pier, and multiply by 2 to get square footage of treatment area. Apply to foundation wall and piers 24" up from soil.	400 square feet (Measure area: length X width)
	Exterior Wall Vertical Treatment (wood)	To complete the 2' vertical requirement for exterior foundation treatments.	Apply up 12" up onto structural wood components above the top of the header joist (to include the edge of the sub-floor, sill above sub-floor, stud wall and exterior sheathing). (also applies to basement structures)	160 linear feet (in addition to amounts listed above)
BASEMENTS	Basement	Use as preventive treatment against termites.	Apply to all wood in a 24" area in from exterior wall (to include sill plate, header joist, floor joists and subfloor). Apply second coat on sill and header joist.	100 linear feet (Measure linear feet of all foundation walls & piers to be treated)
	Finished Basement	Additional treatment required for finished basement.	<i>Walls in contact with foundation:</i> Vertically apply to all wood including sill plate, total stud boards and all the top plate (or runner). Vertically treat all plumbing protrusions (as listed under slab construction). Spray slab 2"-8" horizontally out from sill or base plate. <i>Interior Walls:</i> Apply to sill/base plate and 24" up on studs and other wood members in contact with slab foundation. Apply second coat on sill. Spray concrete 2"-8" horizontally out from sill or base plate. Treat all pipe protrusions within stud walls or free standing in slab 24" up from slab and extend horizontally 6" out on the slab surface.	50 linear feet (Measure linear feet of all stud wall sills attached to solid foundation) 200 linear feet (Measure linear feet of stud walls to be treated)



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BORA-CARE COMMERCIAL NEW CONSTRUCTION APPLICATION WORKSHEET
(2 ft. Barrier Treatment)

Type the appropriate numbers in the grey cells. Figure the calculations in the white cells.

SECTION I: SLAB AREAS	
LINEAR FEET OF ALL EXTERIOR WOOD STEEL/METAL/STUD WALLS (Treat sills, slab & 24" vertical band)	
LINEAR FEET OF ALL INTERIOR WOOD STEEL/METAL/STUD WALLS (Treat sills, slab & 24" vertical band)	+
	=
	Total linear feet of stud walls
	$\div 200 = \mathbf{A.}$
NUMBER OF BATH TRAPS	
	$\times .125 = \mathbf{B.}$
LINEAR FEET OF ALL EXTERIOR SIDING WALLS (Treat exterior plywood or OSB siding 24" vertical band up from slab; amounts same for treating both sides once or one side twice.)	
	$\times 2 =$
	Square feet, siding
	$\div 400 = \mathbf{C.}$
TOTAL LINEAR FEET OF INTERIOR SURFACE OF EXTERIOR BLOCK/CONCRETE WALLS	
TOTAL LINEAR FEET OF INTERIOR FOUNDATION BLACK/CONCRETE WALL SURFACES ASSOCIATED WITH EXPANSION JOINTS (OR ABUTTING SLABS)	+
	$\times 2 =$
(Treat walls 24" up from contact with slab; extend 2"-8" out from wall.)	
TOTAL SQUARE FOOTAGE	$\div 400 = \mathbf{D.}$
	Gallons of solution

TOTAL NUMBER OF PIPES, CONDUIT OR PLUMBING PENETRATING FROM SLAB # less than 3" diameter

(Apply 24" up from slab on pipe if available and extend application out onto slab at least 6".)

x 2 oz. =
Total oz for <3"

3" or more

x 4 oz. =
Total oz for ≥3"

TOTAL GALLONS NEEDED TO TREAT ALL PENETRATIONS ÷ 128 = **E.**
Gallons of solution

TOTAL LINEAR FEET OF EXPANSION JOINTS, COLD JOINTS, CENTRAL JOINTS & ABUTTING SLAB JOINTS

(Apply to slab surface along joint extending at least 6" out on each side.)

÷ 400 = **F.**
Gallons of solution

TOTAL LINEAR FEET OF VISIBLE CRACKS IN SLAB AT TIME OF APPLICATION

(Apply 12" out on slab surface on each side of visible crack.)

÷ 200 = **G.**
Total gallons of solution to treat cracks

SECTION I: SLAB AREA – TOTAL GALLONS OF BORA-CARE 1:1 SOLUTION NEEDED (A+B+C+D+E+F+G) =

SECTION II: CRAWL SPACE OR BASEMENT AREAS

LINEAR FEET OF ALL CRAWL SPACE/BASEMENT CONCRETE WALLS

(Include linear feet of support piers & foundation. Treat 24" vertical band up from interior soil or slab surface.)

x 2 =
Square feet

÷ 400 = **A.**

NUMBER OF PIERS

(Treat all floor structure in contact with pier in 24" horizontal band out from contact with pier.)

x 8 =

LINEAR FEET OF SILL PLATES ON FOUNDATION

(Treat foundation sill plate, header, floor joists & subfloor as a 24" horizontal band in from contact with foundation.)

÷ 100 = **B.**

LINEAR FEET OF EXTERIOR WOOD STUD WALLS

(Treat exterior walls, sills, studs & sheathing above box header & sills up 12" to satisfy 2' vertical rule.)

$\div 160 = C.$

NUMBER OF BATH TRAPS (*Basement slabs only*)

$\times .125 = D.$

LINEAR FEET OF STUD WALLS AGAINST FOUNDATION

(*Garage or basement only*)

(Within 3" of foundation, treat entire stud, slab, sill plate on slab & top plate.)

$\div 50 = E.$

LINEAR FEET OF ALL INTERIOR STUD WALLS

(*Garage or basement only*)

(Treat sills, slab & 24" vertical band up from slab.)

$\div 200 = F.$

SECTION II: CRAWL SPACE OR BASEMENT AREA – TOTAL GALLONS OF BORA-CARE 1:1 SOLUTION NEEDED (A+B+C+D+E+F)

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