



DRYWOOD TERMITE TECHNICAL BULLETIN

BORA-CARE®

For the Prevention & Control of Drywood Termites



NISUS™

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BORA-CARE® TECHNICAL BULLETIN

REMEDICATION FOR CONTROL OF DRYWOOD TERMITES

(ALWAYS READ AND UNDERSTAND LABEL DIRECTIONS COMPLETELY BEFORE ANY APPLICATION.)

Introduction: Drywood termites are social insects that live in colonies in sound, dry wood. Each colony consists of offspring from an original pair (male and female). There are three growth stages – eggs, immatures and adults. Drywood termites are usually larger than subterranean species. Drywood termite colonies are rather small (a few thousand individuals), and develop relatively slowly. They neither live in the ground nor maintain contact with the soil, and they do not build mud tubes. The first evidence of a drywood termite infestation is the presence of dry fecal pellets, which are exited from galleries through “kick holes.” Drywood termites tend to cut across the wood grain and primarily feed on the softer wood. Swarming drywood termites fly into structures and infest wood directly. They typically infest exposed wood such as window and door frames, trim, eaves and attics. When swarming, they will often re-infest the same structure multiple times. Although the damage may be localized to an area occupied by a relatively small colony, the combination of many colonies as a result of new infestations or re-infestations can cause major damage over time.

Treatment Ratios: For prevention use a 5:1 ratio; for remedial use 1:1 or 2:1 (foam and misting) ratio.

Inspection: A thorough inspection is paramount and proper species identification is imperative for successful drywood termite control. Examine the exterior of the house, including sills, roof eaves, shingles, exposed ends of rafters, and any miscellaneous projections. For interior inspections concentrate on where fecal pellets are found. Single nests may be isolated, whereby removing damaged wood and spraying around the undamaged periphery is suitable for remedial control.

Estimating Amount Needed for Application: One gallon of Bora-Care finished solution will treat 400 sq. ft. of 1" thick wood surface area or 400 board feet. Two treatments are needed for areas where only 1 to 2 sides of a wood member is exposed. Wait at least 20 minutes between applications.

Mixing Bora-Care: Bora-Care concentrate must be mixed with water for all solution ratios when used as a primary or remedial drywood termite treatment. The following equipment is recommended when mixing Bora-Care:

1. Five-gallon pail
2. Drill
3. Mixing impeller

To mix, add 3/4 amount of the water into pail/tank and begin mechanical agitation while gradually adding the required amount of Bora-Care. Use remaining water to triple-rinse Bora-Care container(s), and add final rinse solution into pail/tank. Mix until a smooth one-phase solution is created. Only mix enough Bora-Care 1:1 or 2:1 solution needed for each day's application. The 1:1 or 2:1 solution is not to be stored in the spray tank or other container for more than 24 hours. In colder climates it is recommended to keep Bora-Care as warm as possible and mix with warm water.

Many companies use a 1-2 gallon hand-held stainless steel sprayer or a backpack sprayer to apply 2-4 gallons of Bora-Care solution per each new construction treatment. If a larger amount of Bora-Care solution is needed, a mechanical pump spraying unit that produces good agitation is recommended.

Application Methods: The following methods listed are variations that can be used for a large assortment of drywood termite infestation scenarios:

- a) *Fan Spray:* Use to coat surface wood, larger crevice spaces, galleries, and direct contact of any insect activity.
- b) *Pin Stream:* Use to treat narrow crevices.
- c) *Misting:* Voids, Attics, and hard to reach areas.
- d) *Foam:* Use 20:1 expansion ratio. Use for wall voids, galleries, direct insect contact, and any other miscellaneous voids. One liquid gallon equals 0.13 ft³. At a 20:1 expansion one gallon will treat about 2.6 ft³. ProFoam® Platinum is recommended for Bora-Care foaming applications. Mix 7 oz. of ProFoam Platinum for 20:1 expansion.
- e) *Pressure Injection:* Drill into the infested wood and inject until the liquid or foam runs out of openings, damaged areas or kick-out holes. This procedure should be used in addition to spraying when structural timbers are greater than 4 inches thick and/or for active drywood termite galleries. This procedure can also be used for painted or sealed wood.

Drilling Holes:

Injection holes (typically 7/64" or 1/8" in diameter) should be drilled in the area of suspected infestation. For larger wood members, holes 1/4" are recommended. Drill holes through the widest dimension. Holes should be drilled in a diamond pattern and spaced approximately 4"-6" across the grain and 12"-16" along the grain (see Figure 1). When possible, the wood should be treated one diamond length pattern beyond the immediate area of visible infestation.

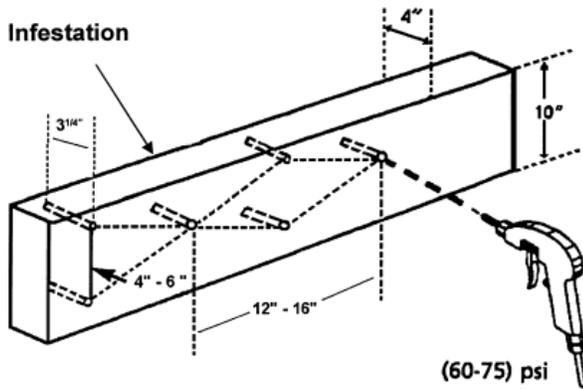


Figure 1: Drill and pressure injection of a 4" x 10" structural beam with Bora-Care solution.

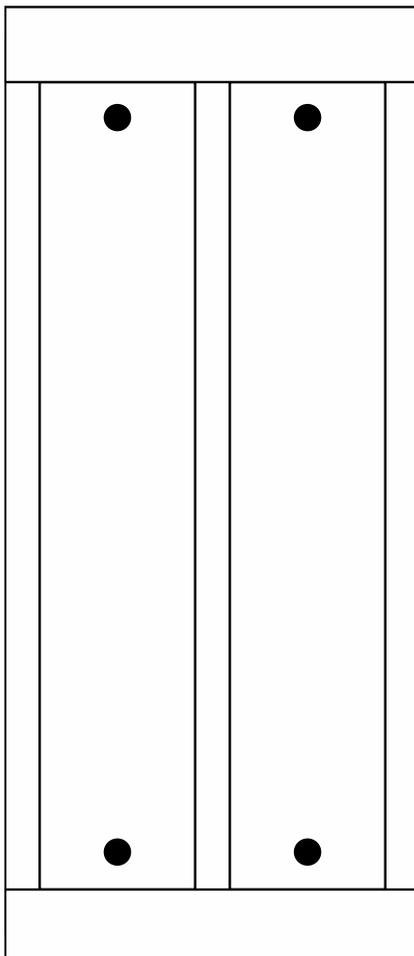


Figure 2: Wall void illustrating drill holes

Wall Voids:

For hollow wall voids, high pressure misting is best. If possible, drill a small hole at the bottom of the wall near the baseboard (Figure 2, left) and/or make another drill hole near the top of the wall, between interior studs.

The objective is to obtain uniform coverage of the studs, the top and bottom plates and the back of the wall board inside the void area (Figures 3 and 4). Directly apply to the nest with foam if possible. Foam applications are good for longer vertical voids or small voids that can be filled easily. If misting under insulation is possible, then apply. If there is a chance insulation will be compromised, then removal is recommended before application.

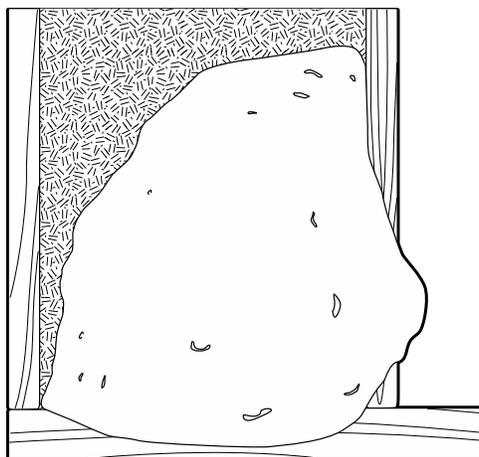


Figure 3: Insulated wall void

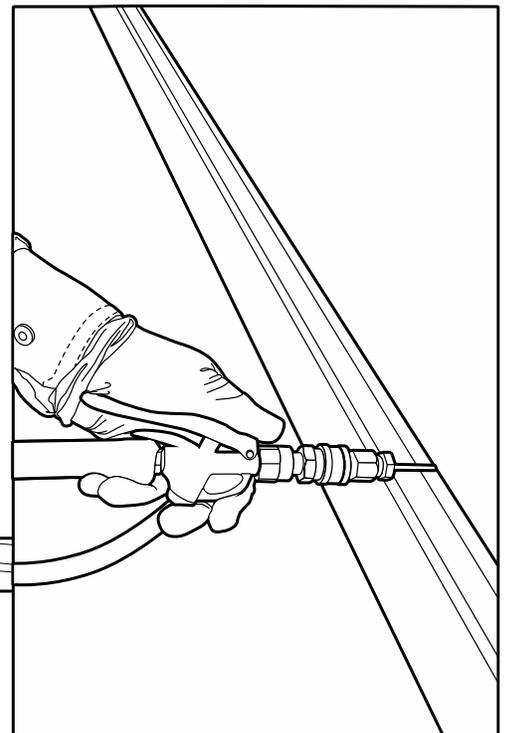


Figure 4: Foaming into wall void

Attics:

Focus on the pitched walls and adjoining trusses (Figure 5). To determine the amount of Bora-Care needed, see the *Attic Worksheet* below. If an infestation is present beneath or partially hidden by insulation, remove the insulation and apply directly to those areas.

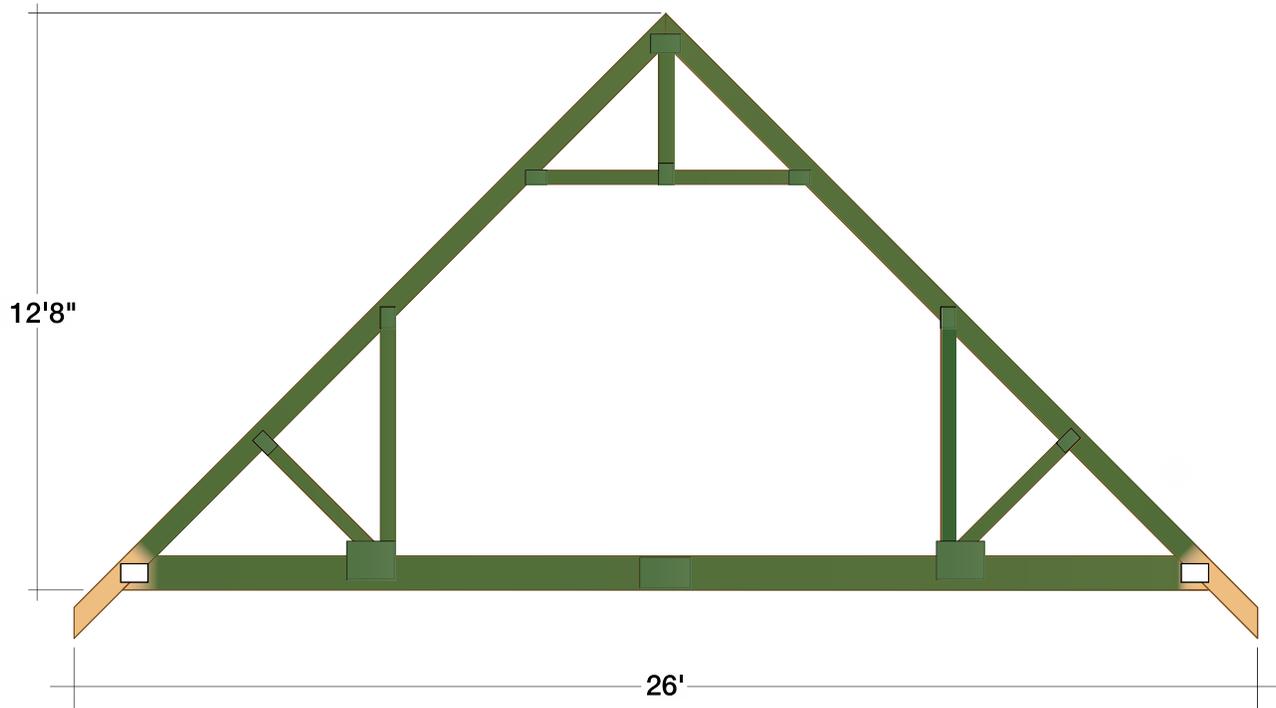


Figure 5: Attic truss

Attic Worksheet:

This mixing instruction should be used only as a guide for predicting the best amount of Bora-Care material needed to conduct proper termite treatments in attics.

Attic Height

- If ≤ 6 ft. in height, multiply square footage by 3.5
- If >6 ft. in height, multiply square footage by 4.5

• Example for Preventative Treatment (Drywood Termite Only):

1,000 square foot attic, 6' tall using a 5:1 solution:

- $1,000 \times 3.5 = 3,500$ sq. ft. wood surface area
- $3,500 \div 400 = 8.75$ gallons of Bora-Care solution needed
- 8.75 gallons of Bora-Care solution $\div 6 = 1.45$ gallons of Bora-Care concentrate

• Example for Remedial Treatment (All Termite Species):

1,000 square foot attic, 6' tall using a 1:1 solution:

- $1,000 \times 3.5 = 3,500$ sq. ft. wood surface area
- $3,500 \div 400 = 8.75$ gallons of Bora-Care solution needed
- 8.75 gallons of Bora-Care solution $\div 2 = 4.375$ gallons of Bora-Care concentrate

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