Anyone who has opened a floor after termite treatment knows that wood tells the story. You find softened fibers along joists, pinholes tracking across the grain, and subfloor panels that look fine from above but crumble under a pry bar. Choosing the right panel for the rebuild matters because the subfloor is more than a walking surface. It is a structural diaphragm, a moisture manager, and the foundation for quiet floors later. The plywood vs OSB question comes up on almost every termite subfloor repair I handle, and the right answer depends on how the house lives, not just what is on sale.

What termites actually do to subfloors

On paper, termites prefer springwood to dense latewood. In practice, they go wherever moisture and access lead them, often through plumbing penetrations, slab cracks, or a damp crawlspace. Subterranean termites build mud tubes and work up from below. Drywood termites can start in attic lumber and travel down through framing. In subfloors, I typically see two damage patterns:

- Panel edges softened over joists where plumbing leaks kept the wood humid.
- Tunneling along or into floor joists, blocking, and sill plates that undermines the panel bearing.

Panels rarely fail purely from termites without moisture helping. If your bathroom or laundry area has a history of leaks, expect more extensive termite wood repair, including localized termite wall repair around wet walls and sometimes termite drywall repair after termite treatment, especially where wicking pulled moisture up into paper-faced gypsum.

The key takeaway is that subfloor repair happens in a system. You are not only swapping panels. You are reconnecting structure, moisture control, and finishes.

How pros evaluate the repair scope

A thorough termite damage repair starts with an invasive look. Probing with an awl is not enough. I plan cut lines that let me inspect the framing grid: joists, blocking, beams or girders, and the sill plate at exterior walls. The sequence goes like this in my shop:

- Confirm active infestation is treated. No structural work until a licensed pest pro has done their part.
- Map damaged framing. Sister floor joists if the cross section is compromised. Replace or add load paths if a beam notch or sill plate shows loss. This is true termite structural repair, not just patchwork.
- Decide which subfloor zones to remove based on clean, square edges that will land on joists. Chasing damage with random cuts creates squeaks later.
- Assess moisture. A pin meter below 15 percent is my target before closing up. Crawlspaces get special attention to ground vapor control.

Once the structure is back to full capacity, the plywood vs OSB choice becomes a question of resilience, stiffness, and buildability in your conditions.

What plywood and OSB really are, from the floor up

People talk about plywood and OSB as if they were flavors of the same thing. They are close cousins with different habits.

Plywood is thin sheets of veneer cross laminated with adhesive. The alternating grain direction is what gives it strength and relative stability. It tends to hold fasteners well along panel edges and it sheds small amounts of moisture faster because it is layered. In subfloors, I favor tongue and groove plywood in 23/32 inch for joists at 16 inches on center, thicker for 19.2 or 24 inches on center.

OSB is strands of wood oriented and pressed with resin. It distributes load uniformly, is consistent panel to panel, and often provides excellent stiffness per dollar. It comes with a waxy water resistance, but the edges can swell if wet, especially with prolonged exposure. That swelling is not a deal breaker, but you have to manage it and you have to plan how finish flooring will sit.

For termite subfloor repair, the real question is how each panel type behaves after an infestation, where the environment may be damp, the crawlspace may be tight, and framing may need sistering.

The quick comparison I give clients

Here is the summary I use at the kitchen table when homeowners weigh options.

- Moisture forgiveness: Plywood tends to recover shape better after incidental wetting, while OSB edges can swell and stay proud.
- Fastener grip and squeak control: Plywood edges bite screws and ring shank nails a touch better. OSB holds well but benefits from adhesive and predrilling on older, dried joists.
- Price and availability: OSB is often cheaper and consistent in large runs. Plywood prices swing more with market cycles.
- Surface and finish transitions: Plywood edges sand easier if you need to flush a transition. OSB can fuzz when sanded.
- Long spans and uniformity: OSB is very uniform. For 24 inches on center framing, premium OSB with high span ratings holds its own.

When plywood makes more sense

In bathrooms, laundry rooms, and kitchens that saw leaks, plywood usually wins. After termite damage restoration, I want resilience while the building dries to its long term equilibrium. Plywood is more forgiving of small spikes in humidity as homeowners go back to showers and cooking. If the crawlspace ventilation or ground vapor barrier is only so-so, plywood buys you margin.

I also reach for plywood when the framing grid is irregular. Many termite framing repair jobs involve sistering joists that are not perfectly flush with old members. Plywood’s layered nature takes screws on panel edges without splitting as easily, and it seems to tolerate slight misalignment without telegraphing a ridge. When you are stitching cut lines over a patched joist, this helps avoid a squeak line six months later.

For older homes with borderline flatness, plywood is a friend to finish flooring. Tile installers appreciate a dense, stiff plywood underlayment. For nail-down hardwood, plywood gives better nail retention. That matters after termite subfloor repair because you may be blending new flooring into old, and the substrate needs to feel indistinguishable.

Finally, if you are working above conditioned space with limited access from below, plywood’s lower tendency for edge swell reduces the chance of seam telegraphing under resilient floors. If it does happen, a light sand blends the high spot. OSB can be sanded, but it gums and takes more patience.

When OSB is a smart choice

OSB shines where you have broad, open spans and controlled moisture. In a dry, well-ventilated crawlspace, OSB subfloor panels with tongue and groove edges perform very well. For termite attic wood repair that includes adding a new storage deck or rebuilding a platform around an air handler, OSB is uniform and a good value.

For termite floor joist repair where you are re-sheathing large areas and budget matters, OSB with a high performance water resistant edge and Exposure 1 or better rating gives you stiffness and a stable walking surface during the work. On multifamily or bigger footprints, the savings are not trivial.

If you plan floating vinyl plank or laminate over large rooms, the uniform density of OSB can yield a consistent underlayment feel. The caveat is edge management. You have to be disciplined with adhesive, fastener pattern, and seam treatment to avoid proud edges if any moisture sneaks in.

The alphabet soup on the panel stamps, decoded

Whatever you choose, the stamp should guide the thickness and span. Look for:

- Exposure rating: Exposure 1 is common and means it can handle construction moisture, not long term wetting. Exterior rating for true weather exposure is rare for subfloor panels.
- PS 1 and PS 2: These are standards for structural plywood and for performance rated panels. An APA stamp with a span rating like 48/24 tells you roof and floor spans. For floors, follow the second number and your local code.
- Tongue and groove: For subfloors, T and G edges help carry load between joists and reduce between-joist deflection that leads to tile cracks or squeaks.

For most termite subfloor repair, 23/32 inch T and G rated for 24 inches on center is a safe call even if your joists are at 16 inches on center. Thicker panels hide a lot of small sins that often come with older framing and spot sistering.

Adhesives, fasteners, and layout make or break the result

Material choice is only half the story. Poor fastening ruins good panels. I spread a polyurethane or solvent based subfloor adhesive in a continuous bead on joists and at blocking, then seat the tongue and groove with a block to avoid damage. Ring shank nails of 8d or 10d work, but I often use structural screws with a smooth upper shank and aggressive thread, 2.5 to 3 inches long, driven on a 6 inches on center pattern at panel edges and 8 inches on center in the field. Where I plan a tile install, I tighten that spacing.

For OSB, predrilling edges at sistered joists can reduce splitting certified termite inspector Watsonville and helps pull a tight seam. For plywood, drive angle matters because the layers can delaminate at sloppy angles. If you hear a hollow sound later, it likely means the adhesive skinned over and the panel did not seat. In that case, I back out enough fasteners to syringe adhesive into the cavity and re-clamp with screws.

Stagger seams like brickwork. Land cut edges on the center of a joist. Leave a 1/8 inch gap at panel ends and edges, unless using a built-in spacer system, to allow seasonal movement. Small details like these do more for squeak-free floors than the plywood vs OSB brand on the receipt.

Moisture, borates, and protecting the repair

Once termites are eliminated, the best insurance against a comeback is moisture control. Subterranean termites need water. Crawlspace ground poly with seams taped, working vents or a sealed system with dehumidification, and functional guttering keep wood dry. If I am replacing sill plates or sistering where termites feasted, I often use borate treated lumber in non-ground contact applications. It is not pressure treated like deck lumber, but the borate acts as a deterrent. Follow your local code and keep treated and untreated wood details straight. You do not want to trap moisture at steel connectors by mixing incompatible treatments.

For panels, borate treated plywood exists and can be a fit for high risk zones. Cost rises, so I reserve it for bathrooms over crawlspaces or laundry areas that already had a story. Sealing panel joints with a compatible underlayment compound before finish flooring adds another layer of moisture management, especially under resilient floors.

Repair sequence that holds up

If you are a homeowner coordinating termite repair services and trades, a clean sequence prevents rework.

- Treat and confirm no active termites. Keep the pest report on hand for the building inspector or insurance adjuster.
- Open from the top where floors are already slated for replacement. Cut square, plan to land on joists.
- Repair structure first. Sister joists, replace a compromised sill plate, add hangers or blocking. If a beam notch is suspect, address with engineered fixes. This is the heart of termite structural repair.
- Dry the assembly. Use fans and a dehumidifier. I want subfloor framing under 15 percent moisture content before closing.
- Install subfloor with adhesive and the right fastener schedule. Choose plywood or OSB based on the conditions you documented, not habit.

If you are blending old subfloor with new, I often route a shallow rabbet on the cut edge of the old panel and ship lap the new panel to reduce a hard seam. It takes an extra 20 minutes and saves you from telegraphing through thin finish flooring.

Real world examples from the field

Two jobs still shape my view on this topic. The first was a 1950s ranch with a vented crawlspace, clay soil that held water, and a long term pinhole leak on a copper line. The owners had soft floors in the hallway and a musty bath. Termite inspection showed activity along the sill plate and two joists. After treatment, we replaced 12 feet of sill, sistered three joists, and re-sheathed about 140 square feet. I chose 23/32 inch T and G plywood. The crawlspace dried to 12 to 13 percent in a week with fans. Two years later, the bathroom floor is still dead quiet and the hall transitions took stain evenly. In a space with chronic humidity swings, plywood’s recovery from incidental moisture helped.

The second was a newer home with engineered I-joists at 24 inches on center and an encapsulated crawlspace that frankly looked like a clean room. A dead valve in a refrigerator line caused local termite activity that migrated into a corner of the kitchen subfloor. We had to pull almost 300 square feet to retrace the tunnels and confirm clean wood. I used high performance OSB with sealed edges, glued and screwed. The long spans wanted uniform stiffness, and the environment was dry enough that edge swell was not a concern. The cost difference was several hundred dollars in the homeowner’s favor at that scale, and the finished luxury vinyl plank felt consistent wall to wall.

Dealing with transitions, tile, and quiet floors

Finish flooring drives a lot of arguments. For ceramic tile, the Tile Council of North America wants deflection under L/360 for ceramic, tighter for stone. That is a framing question first, panel choice second. Both plywood and OSB can meet the standard with proper thickness and underlayment, but I still lean plywood under tile because it seems to pair better with cement board or a decoupling membrane without telegraphing seams as readily.

For nail-down hardwood, plywood wins on nail grip. For floating systems or carpet, both materials work if you manage seams and flatten the surface. Quiet floors start with adhesive, fastener schedule, and blocking under high traffic spots like fridge alcoves and hallway turns. The panel label does not fix a squeak caused by a loose joist hanger.

Integrating other termite repairs around the subfloor

Termite subfloor repair rarely stands alone. Common companions include termite floor joist repair, termite sill plate repair where the mud line bridged over a foundation, and termite beam repair in basements with concealed tunnels near supports. If the infestation reached interior partitions, you might see termite wall repair, especially at the base plates where plumbing penetrations sit. After fumigation or localized treatment, paper-faced drywall sometimes shows staining or damage, so a bit of termite drywall repair after termite treatment is not unusual. Plan the sequencing so structural fixes happen first, then panel work, then finishes.

Where the attic showed galleries near the hatch, I inspect for termite attic wood repair needs. Even if the roof framing is fine, this is a good moment to add baffles, improve insulation, and reduce condensation that can draw pests.

If the scope grows, do not hesitate to find a local pro with the right experience. Searching for termite repair near me or termite damage contractor near me helps, but dig deeper. You want a crew that understands structural termite repair near me, not just cosmetic patches. Ask about how they choose plywood vs OSB, their adhesive and fastener schedule, and how they handle moisture targets. Good answers here correlate with strong results.

Cost, timelines, and the value of doing it once

Costs range widely based on access, finish flooring, and whether you are doing only panels or structural work too. As a broad rule in the regions where I work, panel replacement alone in a small bathroom might run a few hundred dollars in materials and a couple of days of labor including demo and drying time. Add termite floor joist repair or termite sill plate repair, and you can multiply that by two or three depending on how much sistering and replacement is needed. Larger kitchen or living rooms with open spans and new underlayments will push higher.

Timelines depend on moisture. I rarely close a floor the same day we open it after termite damage repair. A day or two of drying makes a lifetime of difference to adhesives, fasteners, and wood movement. Plan accordingly with your finish floor installer. Coordinate with your pest control contractor so their reports and any retreat windows match your rebuild schedule.

Doing the work once, with the right materials, beats saving a few dollars on panels. Whether you pick plywood or OSB, you should expect the repaired floor to be indistinguishable from the rest of the house in feel and sound.

Common pitfalls to avoid

Two mistakes show up over and over when I am called to fix someone else’s fix. First, closing over wet framing. Wood at 20 percent moisture looks calm on day one and shrinks loose under fasteners within months. Second, cutting corners at panel edges. If a cut line does not land at the midpoint of a joist, add backing. Do not rely on a thin sliver of bearing. That sliver is where squeaks and bounce breed.

Another common issue is forgetting to reestablish the lateral bracing that the subfloor provides. In rooms where walls do not meet perpendicular to joists, the subfloor acts as a diaphragm. Nail patterns and glue coverage matter for this reason beyond squeaks.

Finally, be careful with pressure treated materials in the wrong place. Use appropriate treated sill plates where code requires ground contact resistance at the foundation, but do not mix contact-treated components with standard metal fasteners without checking for compatibility.

Choosing between plywood and OSB with confidence

There is no universal winner. Plywood buys resilience and edge performance in damp or variable environments. OSB delivers uniformity and value in dry, well-controlled assemblies. Your termite subfloor repair should also reflect the larger repair plan: the state of the crawlspace, how much termite structural repair took place, the finish flooring, and your willingness to enforce moisture discipline going forward.

If you are unsure, invite a contractor who has handled both materials in real termite damage restoration work, not just new builds. Local termite damage repair pros see the same soil, the same crawlspace conditions, and the same plumbing practices you have. A seasoned wood repair contractor termite damage near me will likely ask more questions about how you live than what brand you prefer. That is a sign they plan to deliver a floor that stays quiet and solid for years.



And if you are the homeowner who found this while standing over a hole in the hallway with a pry bar in hand, take a breath. Termite wood repair is fixable. Do it in the right order, pick the panel that fits your home’s conditions, and let the fasteners and adhesive do their quiet work. With the structure healed and the moisture managed, the debate between plywood and OSB fades, and what you keep is a floor that feels like it always should have.