Termites rarely stop at nibbling the edges. When they find their way into framing, they can soften a sill plate, hollow a joist web, or honeycomb a subfloor panel until the fibers lose their bite. After you finish the extermination and the structural fixes, you are left with a surface that looks fine at a glance but rides like a washboard underfoot. Leveling after termite subfloor repair is the step that makes the house livable again. It is where fine carpentry meets concrete savvy, and it is where most callbacks begin if you rush.

I have walked into more than a few homes where fresh tile was already cracking over a newly “repaired” crawlspace. The crew rebuilt joists and replaced subfloor patches, then rolled LVP a week later. Without tuning the plane of the floor, the highs telegraphed, the lows flexed, and every threshold reminded you where the termites had lived. With a measured approach, you can avoid that spiral. The key is to treat leveling as its own scope, with its own tolerances, materials, and timing.

What termite damage leaves behind, and why leveling matters

Termites do not remove wood in a uniform way. They follow moisture and cellulose, often leaving intact faces with hollow cores. In practice, that means:

- Subfloor panels lose stiffness between joists, so footfall deflection increases in odd spots.
- Floor joists may have reduced section at midspan, which changes how much they sag under load.
- Sill plate and beam repair can lift or settle bays unevenly during jacking and replacement.
- Patchwork sheathing introduces thickness variations and seams that sit slightly proud or shy.

Even after solid termite structural repair, the floor is rarely in one plane. Flooring manufacturers do not design for waves. Tile wants a substrate within about 1/8 inch over 10 feet. Engineered hardwood often calls for 3/16 inch over 10 feet. Luxury vinyl plank can tolerate minor undulations but will telegraph joints and dish out at soft spots. Carpet forgives the most, but seams still show over ridges. Leveling brings the substrate back within those tolerances so the investment in finishes pays off.

First things first, structural integrity before surface perfection

Leveling is cosmetic compared to structural termite repair, but you cannot separate them. If the structure still moves, no amount of cement will save your floor. Before considering primers or self leveling underlayment, confirm the bones are sound.

In a typical termite damage restoration, I follow this order:

- The infestation is treated, often with a local termiticide and, for subterranean species, a soil treatment or bait system.
- Framing is opened enough to expose the full scope, not just the “wet looking” wood. I probe with an awl and check grain resistance every 4 to 8 inches.
- Compromised members are repaired to original capacity or better. That may mean full joist replacement, sistering with equal or larger dimensional lumber, adding a flitch plate, or in some cases installing a beam and post to shorten spans. Termite floor joist repair and termite beam repair should be engineered when load paths change.
- Sill plates are replaced in sections with temporary cribbing, then strapped and anchored to current code. Termite sill plate repair frequently changes elevation by a few sixteenths, which you must account for later at wall lines.
- Subfloor panels with damage are replaced with tongue and groove plywood or an equivalent like 23/32 inch Advantech. Use a proper adhesive, screw the field 8 inches on center and edges 6 inches. I prefer ring shank nails only as a supplement, not the primary fastener, to reduce future squeaks.
- Moisture at the repaired area dries to within a safe range, ideally 8 to 12 percent for indoor wood framing, measured with a pin meter. If you lock in high moisture under a cementitious topping, you buy blisters and debonding later.

The saying is boring but true. Make it sturdy first, then make it pretty.

A quick readiness check before you chase level

Use this short checklist to avoid wasting time and material.

- Moisture content in wood subfloor and joists is stable and at or below 12 percent.
- All structural termite repair is complete, including sistering, blocking, and any required posts or beams.
- Subfloor seams are glued and screwed tight, no bounce between joists, and squeaks are addressed.
- Termite treatment is documented, and any recurring moisture source has been fixed.
- You have tolerance requirements for the final flooring from the manufacturer in writing.

If any box is not checked, hold off on leveling. Fix the root cause, then move forward.

How flat is flat enough, and what method fits each situation

You do not always need self leveling cement. Sometimes a hand plane and a trowel patch save money and time. The right approach depends on how far out of plane the surface is, over what area, and what the finish floor will be.

For small localized dips, say 1/16 to 1/8 inch in a two to three foot pocket, a polymer modified patching compound works well. It feathers to nothing, bonds to primed wood, and builds to a quarter inch in one pass. I use these around patched subfloor seams or over a sistered joist that sits a hair low under a joint.

For broad sags across multiple joist bays, self leveling underlayment is the workhorse. Over wood, you need an SLU that is rated for wood substrates. Many require metal lath or fiber reinforcement and a minimum thickness, often 3/8 to 1/2 inch over the high point. Read the data sheet closely. Products vary on primer type, temperature range, and cure time. When the deflection is more than 1/8 inch over 10 feet, and especially when installing tile, SLU becomes your friend.

For high ridges, I reach for a power planer, belt sander, or in severe cases a router sled with a straight bit and a guide. Grinding down a proud seam by 1/32 to 1/16 inch can save a bag or two of SLU and hours of cure time. Mark nails first so you do not kiss steel with carbide.



For systemic sag due to undersized or damaged joists, do not bury the problem under cement. Jack, shim, or reframe. Sistering with LVL or good straight 2x stock, installing midspan blocking, or adding a beam and post under the worst run will put your floor back within L over 360 for hardwood, and preferably L over 480 for tile. Termite floor joist repair is not a place to get creative with epoxy. Structural capacity needs wood or steel, not filler.

For transitions and cabinets, think about elevation now. An SLU pour can raise the floor by 1/2 inch or more. That affects door swings, appliance clearances, and stair riser uniformity. I once watched a kitchen island turn into a trip hazard because the crew leveled only one side of a room. Level across boundaries or plan solid transitions.

The tools that keep you honest

The best tool on these projects is a self leveling rotary laser or at least a good cross line laser with a receiver. It tells you if the kitchen rolls 3/8 inch across 15 feet or if the dip is really only a quarter inch by the slider. A 10 foot straightedge or a tight string line backed up by a story pole works when you do not have the laser.

In addition to measuring gear, you will want a heavy duty primer brush or roller, a gauge rake, a spiked roller for SLU, trowels of a few sizes, a mixing barrel and paddle, and enough manpower to mix and pour continuously. On larger areas, I stage two mixing stations. One tech pours while two keep the next batch spinning. If the product has a 10 to 15 minute flow time, you do not want a cold joint because a bag jammed in the throat of the barrel.

A stepwise approach that avoids do overs

When the structure is ready and you know your tolerances, follow a clear sequence. These steps have served me well on termite subfloor repair jobs that demanded flatness for tile or glue down wood.

- Map the plane. Shoot elevations at a grid of points, say every 3 to 4 feet, and mark highs and lows on the floor with a pencil or crayon. Note how many bags of SLU you expect based on the area and average fill depth.
- Knock down highs. Plane or sand raised seams, proud patches, and crowned joists telegraphing through the subfloor. Vacuum thoroughly afterward.
- Prime and dam. Apply the manufacturer’s primer at the recommended rate. Install perimeter foam or caulk dams at thresholds, vents, and holes. If the SLU requires lath over wood, fasten it flat and avoid overlaps that create ridges.
- Fill dips, then flow. Pre fill deep birdbaths with patch to reduce SLU thickness, then pour and rake the SLU to your reference line. Roll with spikes to pop bubbles and knit wet edges.
- Cure and verify. Protect from drafts and traffic. After cure, recheck with the straightedge and laser. Feather any small misses with patch. Document the final flatness before installing underlayment or finish flooring.

On a typical 200 square foot room with a 1/4 inch average fill, plan on roughly five to six 50 pound bags, give or take depending on the product’s coverage. Mix water precisely. Too much water reduces strength and increases shrinkage, which shows up as curling seams under vinyl or cracks under tile.

Particular problem spots after termite repair

Where termite wood repair occurs at sills under exterior walls, the new plate may sit slightly higher or lower than the old. That leaves a ridge or trough along the wall line. You can handle it two ways. Either you plane the subfloor tight to the wall, which is messy and risks nails, or you pad the field with patch and SLU so the plane meets the wall gently over two to three feet. I usually choose the second option because it keeps your baseboard scribe clean and avoids a hollow strip at the wall.

At beam pockets, termite beam repair can change how joists bear, often leaving one bay a touch low at the hanger line. Watch for those repeat dips every 16 inches on center. A broad skim with patch across the hangers helps, then a light SLU pour removes the pattern.

Where joists were sistered, the fastener heads can mushroom the subfloor slightly. Backing out a screw a quarter turn, planing the bump, then resetting the screw helps more than grinding alone. If you have swelling from moisture that is now dry, sanding is your friend.

And do not ignore door thresholds. Leveling one room often means ramping gently into the next. Transition strips hide only so much. If two rooms share one run of joists, level both or you create a hump at the doorway that will haunt you later.

Working over wood with SLU, details that matter

Self leveling over wood is not the same as over concrete. Wood moves with humidity. That movement wants to shear the bond line. Manufacturers fight this with primers, fiber reinforcement, and lath. You fight it with good prep.

Prime right. Most products require one or two coats, with a set time before pouring. The primer locks fine dust to the panel and creates a chemical key. Skipping primer is the fastest way to get a bond failure you cannot see until it is too late.

Respect minimum thickness. Many wood rated SLUs specify at least 3/8 inch over the highest point when used with lath. Some allow thinner placements when reinforced. If you need only 1/8 inch in most areas, a patch compound is smarter.

Mind temperature and airflow. These materials are sensitive. Pour at the recommended temperature, usually 50 to 77 degrees Fahrenheit. Keep the HVAC running to stabilize the slab and the air. Block drafts, which skin the surface too fast.

Create soft joints where needed. If you are pouring across a long expanse, include movement joints that align with doorways or breaks in framing. Tile will thank you later. With wood or vinyl on top, follow manufacturer guidance for underlayment and fasteners to avoid telegraphing a joint through a brittle layer.

Feather and patch where SLU would be overkill

For those 1 to 3 foot sinkholes between joists, a cementitious feather finish does a lot with little. I use it to taper edges to nothing, fill small staple pulls, and soften the shoulder termite exterminator of a seam. Mix tight, apply with firm pressure, and return with a second pass after the first grabs. It avoids raising the entire floor to fix a small wound.

Over OSB, scuff the face with 60 to 80 grit, vacuum, and prime with the manufacturer’s specified wood primer. OSB drinks more than plywood, and the primer prevents pinholes and dry pulls.

Quality control you can defend

Good leveling leaves a paper trail. I sketch a simple grid with elevation notes and a quick before and after flatness summary. Tolerances are not a guessing game. For tile, I document 1/8 inch in 10 feet and 1/16 inch in 2 feet. For hardwood, 3/16 inch in 10 feet. For vinyl, many makers ask for 3/16 inch in 10 feet with no abrupt changes. Those numbers justify the scope and the invoice, and they limit arguments when a homeowner compares a laser dot to a gut feeling.

Use an 8 or 10 foot straightedge and slide feeler gauges under it to spot check. Check diagonals as well as with the joist grain. If you find a 1/4 inch hollow at the end, mark it and patch. Fifteen extra minutes now beats a callback with a full living room set stacked in the kitchen.

When to bring in specialty help

If your floor needs more than 1/2 inch of lift across a large area, or if the framing still bounces under a jump test, call a structural termite repair pro. Many general remodelers can replace a few sheets of subfloor, but jacking a main beam or stitching a broken joist line after termite damage demands experience. If you are searching, phrases like termite repair services, structural termite repair near me, or wood repair contractor termite damage near me will surface crews who live in this niche. Ask for photos of termite beam repair and termite floor joist repair, not just drywall patches.

For homes with cracked plaster, binding doors, or out of square openings after termite work, bring in an engineer. Leveling the floor without re establishing the load path turns your home into a funhouse where the surfaces line up but the structure does not.

On the finish side, tile installers are fussy about substrates, rightly so. If the scope involves a full SLU pour in a kitchen or bath, consider having a tile setter spec the system. They know what plays well under porcelain, and they will own the flatness standard later.

Real world timelines and costs

Timber pests do not respect budgets, but you still need a range to plan. For a 150 to 250 square foot room with moderate termite subfloor repair already complete, leveling typically takes one to three days of on site work, not counting cure time. Day one is mapping, planing highs, and priming. Day two is pour and roll. Day three is verification and touch ups.

Material costs vary by region and product. Wood rated self leveling underlayment often runs more per bag than concrete rated versions. Expect the installed cost for a moderate pour to land in the ballpark of 4 to 8 dollars per square foot, including primer, lath if required, and labor. Feather finish and patch work is cheaper, often 1.50 to 3 dollars per square foot for localized areas. If structural reframing remains, the numbers climb quickly. Termite subfloor repair combined with joist sistering and new subfloor can add 10 to 20 dollars per square foot to that affected area, depending on access and finish removal. Always include plastic, dust control, and waste in estimates. Crawlspaces multiply time.

A short case from the field

One bungalow in my files had classic subterranean termite damage at the rear. The sill plate under the back wall was paper, and three joists had lost almost half their depth at midspan. We replaced eight feet of sill in two lifts with cribbing, then sistered the three joists with LVL, glued and lagged on a staggered pattern. Two subfloor panels were mushy, so we swapped them for T and G plywood and ran new blocking at midspan to tighten the field.

After the structural work, the kitchen still fell 5/16 inch from the wall to the island footprint and had a 1/8 inch ridge over one seam. We planed the seam, scuffed the OSB underlayment in the adjacent dining room, vacuumed everything, and primed with the specified acrylic. Because we were over wood, we stapled down metal lath per the SLU data sheet, keeping overlaps flat.

We pre filled a long dip by the http://birdman-inoue.com/2024/12/16/%e7%ac%ac11%e8%a9%b1%e3%80%8c%e3%81%bf%e3%81%aa%e3%81%a8%e3%81%bf%e3%82%89%e3%81%84%e6%95%a3 5030 back wall with a patch compound to reduce the depth, then poured a fiber reinforced SLU to an average of 3/8 inch at the wall, feathering to almost nothing at the island. Two people mixed while one raked and rolled. The next morning, the laser told us we were within 1/16 across the run and within 1/8 over 12 feet. We patched a small birdbath by the fridge and handed the room to the tile setter. Two years later, a holiday party and a lot of chair scoots later, the grout joints still look like new.

Avoidable mistakes I still see

- Pouring SLU over bouncy subfloor. If the deflection under a step feels trampoline like, concrete will crack. Fix the framing first.
- Skipping primer or using the wrong one. Bond fails silently, then the floor fails loudly months later.
- Trapping wet wood. Check moisture, especially after termite treatment or crawlspace work. Moisture migrates through cement and creates curls under vinyl.
- Ignoring elevations at doors and cabinets. One half inch pour can turn a dishwasher into a built in.
- Leveling one room in isolation. Stairs, hallways, and neighboring rooms need a plan, even if the work is phased.

Tying in related repairs

Termite wall repair, termite attic wood repair, and termite framing repair elsewhere in the house can change loads. A beam added in the basement might lift one side of a partition upstairs, which in turn changes how the subfloor sits across a span. If you fix only one area in isolation, the rest of the system might slowly settle into the new shape, which looks like a leveling failure later. The best projects take a whole house view. If drywall cracked after termite treatment, repair it after the leveling and flooring settle, not before. In some cases, I delay final paint by a couple of weeks so the new plane can prove itself.

What to tell your future self

Floors stay flat when the moisture stays boring. Termites love damp wood, and wood loves to move when humidity swings. After a repair, improve drainage, add a vapor barrier in the crawlspace if code allows, and keep vents clear. Consider a borate treatment to framing in vulnerable zones. Run exhaust fans, fix minor plumbing leaks, and keep grade sloping away from the foundation at a minimum of 6 inches in the first 10 feet. Small habits protect your leveling work more than any brand of cement.

Finding the right team

If you are starting cold, look for local termite damage repair companies who also understand finish flooring tolerances. The best outfits either self perform both scopes or coordinate well. Searching for termite repair near

me or termite damage contractor near me helps, but then ask questions about flatness standards, SLU brands they trust over wood, and how they verify results. A crew that speaks in tolerances rather than just “good enough” will give you a floor that feels right under socks and stands up to a straightedge.

Leveling after termite subfloor repair is not glamorous. It is a mix of measuring, sanding, priming, mixing, and patience. Done right, it erases the story of the damage so your new floor can write a better one.