Roofing underlayment is one of those jobs that rarely looks impressive when you're done, but it can quietly decide whether a roof performs for years or starts misbehaving long before its warranty should end. I've torn off roofs where the shingles were still "fine" and the real damage came from water pathways nobody intended. In most cases, **architectural restoration** the underlayment was installed competently in broad strokes, then failed at the seams, edges, or penetrations where water concentrates and capillary action does its slow work.

This guide focuses on practical installation choices that make a measurable difference: how to prep the deck, how to handle laps and fasteners, what to do around tricky geometries, and what to watch for in real weather and real material behavior.

Start with the right underlayment for the roof you actually have

Underlayment is not a single uniform product in the field. There are asphalt-saturated felt, synthetic underlayment, self-adhered membranes, peel-and-stick flashing systems, and combinations. The best one depends on roof pitch, climate, and the details you'll inevitably hit on the jobsite.

Pitch matters because wind-driven water behaves differently on steeper roofs than it does on flatter ones. Some underlayments are designed to tolerate more exposure during installation, and some are more sensitive to how long they sit before shingles go on. Even if two products carry a roof installation rating, the practical difference shows up when you're staging materials in uneven weather or you have to stop work mid-week.

Deck condition matters too. A synthetic sheet that lays perfectly flat over clean plywood is one thing. The same material stretched over old boards that are cupped, nail-lifted, or dusty can create wrinkles and micro-lift points that water can exploit. If you're dealing with a deck that needs attention, underlayment can help, but it can't replace repair.

A professional habit is to read the manufacturer's installation instructions and keep them visible on the job. Not as a formality, but because underlayment systems are often "compatible" only in specific ways. Laps, nailing patterns, and membrane overlap rules are product-specific, and the consequences of guessing show up later at the edges and at transitions.

Deck prep is where most failures begin

A smooth, well-supported surface makes underlayment installation easier and more effective. Deck prep also controls how fasteners behave and how well adhesives bond.

Before you unroll anything, treat the deck like a finish surface, even if it's temporary. Sweep off grit and sawdust. Remove loose nails or drive them flush. If you have protruding fasteners, they can telegraph through synthetic sheets and puncture the membrane where you don't see it.

If boards are uneven, it's worth the time to address the worst humps and dips. Underlayment generally follows contours, but it does not "level" the roof. A localized low spot becomes a place where water can sit longer, and laps can be under less consistent pressure.

One field detail I've learned the hard way: check for ice and water sheathing remnants, old adhesive blobs, or roofing tar near the edges. Over new underlayment, those areas can create a high spot that prevents full contact of an adhered layer. On peel-and-stick systems, that kind of contact problem can turn a "watertight detail" into a leak path.

If the deck is damp, let it dry enough to get good adhesion and stable contact. Underlayment can tolerate normal jobsite moisture, but extreme wet conditions can change how products behave, especially self-adhered components.

Plan your layout so seams work with gravity and traffic

Underlayment goes down in a way that makes water management predictable. Most roofs rely on the same core idea: every upper course should overlap the lower course so water running down the slope has a continuous path.

In practice, planning the sheet layout saves time and reduces rework. Measure the roof area, identify where your cuts will land, and decide the direction you'll run the sheets before you start. If you start cutting too early, you can end up with lots of small slivers at the edges. Those pieces are more likely to lift or crease when the wind picks up and the roof deck expands and contracts through the day.

Also think about foot traffic. Underlayment is not a finished surface, and it's easy to accidentally skid along the lap line and disturb adhesion or wrinkle a synthetic sheet. Set a staging plan: place bundles where you'll stand minimally, use a controlled path to avoid trampling seams, and keep your tools from dragging across the material.

Laps and overlap: the part you can't "eyeball"

Laps are where underlayment becomes a system rather than a set of individual sheets. The overlap size is usually specified as a minimum, and it can vary depending on product type and roof pitch.

Here's the trade-off: bigger laps reduce risk, but they also add material and can create bulk at edges and transitions. Too much bulk can make shingles sit unevenly and can force you into uneven fastening patterns.

Most of the time, you should follow the manufacturer's stated minimum lap. If you're working near the edge zones where wind-driven water can push upward, pay extra attention to the rules for that zone. Underlayment that laps correctly in the field can still leak if you treat eaves and valleys casually.

When laying sheets, keep the lap area clean. Dust or grit can prevent full contact, particularly with adhered or "stuck" lap designs. Even if the product is mechanically fastened, a dirty lap can interfere with the intended water-shedding behavior.

If you're using a starter strip at eaves, remember that it affects the first course geometry. That means your sheet alignment for the rest of the roof depends on that starting line. A sloppy starter strip turns into crooked laps and misaligned cut lines.

Fastening underlayment without turning it into swiss cheese

Underlayment needs fastening, but fastening is also how you introduce punctures into the roof system. The goal is to secure the material without overdriving fasteners or placing them in the wrong locations.

Use the fastener type and pattern specified by the manufacturer. For many systems, that means nailing or stapling into the deck through the underlayment in defined rows and positions. Some synthetic products prefer staples, some use nails, and some allow limited mechanical options. The fastening schedule is there for a reason: it holds the sheet down against wind uplift and keeps laps consistent during thermal movement.

A common mistake is "helping" by adding extra fasteners when the sheet seems loose. It's understandable, especially on a breezy day, but every extra fastener increases the number of penetrations that must remain dry under the next layer of roofing. If your sheet is fluttering, address the cause. Usually it's alignment, lap contact,

sheet tension, or wind conditions. If the product allows additional fasteners in certain zones, follow that guidance rather than improvising.

Drive fasteners flush. Overdriven fasteners deform the cap area and can create a path for water intrusion. Underdriven fasteners can allow the underlayment to bridge and lift, which can lead to damage under wind loads.

If you're installing over an older roof deck with nail heads or raised edges, adjust your approach. Raised areas can prevent fasteners from seating correctly, which can again affect how water migrates.

Working details: valleys, hips, ridges, and roof-to-wall transitions

Flat field installation is the easy part. Underlayment performance hinges on the transitions.

Valleys

Valleys gather water and debris. Many roof systems use special valley flashing methods, including metal valley pans or integrated underlayment pathways. If you're not using a metal pan, you still need to ensure that underlayment layers and flashing membranes direct water into the valley with reliable overlap. Often, that means using additional self-adhered membrane at the valley floor and careful layering up both sides.

Watch for trapped moisture in valley folds. If underlayment is layered incorrectly, water can move laterally before it ever reaches the metal or shingle valley channel.

Hips and ridges

Underlayment at ridges needs to end in a way that supports proper shingle coverage while allowing water to shed. Depending on the system, you may use additional membrane strips or special ridge underlayment products, especially if local weather patterns demand extra protection.

A pro move is to keep ridge work clean and avoid wrinkling. Wrinkles can become channels, especially where water has to move sideways around fasteners and vents.

Roof-to-wall and chimney edges

Where a roof meets a wall, water can take multiple routes. Underlayment must integrate with flashing so it's not just "under" the shingles, but also directing flow away from vulnerable seams.

If you're installing a base flashing membrane at transitions, don't skip surface prep. Adhesives and membranes are only as good as their contact. Dry the area enough for bonding, clean off dust, and make sure the membrane conforms to corners without voids.

Chimneys and skylights add complexity. Underlayment alone is rarely enough. You typically need flashing steps and, for certain penetration types, additional membrane sealing layers.

Penetrations: vents and pipes are where workmanship shows up

Penetrations break the continuity of your underlayment. The underlayment has to manage water around the penetrations and still allow the final flashing system to do its job.

For pipe boots and vent collars, the underlayment should be cut and lapped in a way that directs water down and away. Don't create "water pockets" under the flashing flange. When you cut the underlayment, make sure you can maintain overlap at the edges and keep the opening aligned with the penetration.

For multiple vents close together, pay attention to how your sheets meet and overlap near the penetration cluster. It's easy to line up the first vent and then force cut around the second. That can leave a seam too close to the penetration where water has little reason to behave.

If you're doing skylights, the same principle applies: underlayment supports the flashing system. Many skylight installations call for a specific flashing kit and integration method. Follow that kit's instructions rather than relying on generic underlayment overlaps.

Weather and exposure time: treat underlayment like a temporary roof, not a forever solution

Underlayment is designed for installation duration, but "designed for" and "survives perfectly in the same way every time" aren't the same thing. If rain is forecast and you can't get shingles on quickly, you need a plan.

Synthetic underlayments often tolerate more exposure than some asphalt felt products, but not indefinitely, and not under all conditions. Heat can also affect certain adhesives, and cold can make membranes stiffer and less conformable.

A practical approach is to work in sections that you can cover with shingles soon after. If you must leave underlayment exposed, secure edges carefully, avoid leaving large areas rolled back or loosely flapped, and watch for wind. Wind can lift corners and create underlayment movement, which can then turn into creases and laps that never fully relax.

Also think about staging. Don't leave stacks of shingles and accessories on top of underlayment. Even if it seems stable, weight and movement can shift the sheet or crush laps.

A small checklist you can use on every job

When you're mid-install and tired, a quick sanity check helps prevent the kind of mistakes that show up months later. Here's a compact checklist I use during walkthroughs.

- Confirm you're using the correct underlayment type and follow the manufacturer's overlap and fastener instructions for your roof pitch
- Verify the deck is smooth, clean, and dry enough for adhesion where needed, with fasteners driven flush
- Keep laps aligned and clean, and ensure every upper course overlaps the lower course in the flow direction
- Fasten in the specified pattern, avoid adding extra fasteners unless the system calls for it, and drive them flush
- Review valleys, eaves, rakes, penetrations, and roof-to-wall transitions before you move on to the next area

Common underlayment mistakes I've seen on real roofs

Most failures are not dramatic. They're small, repeatable, and preventable. If you recognize these early, you can correct them before shingles cover the evidence.

- Installing with laps that are too small for the exposure risk, especially near eaves and in high-wind zones
- Letting the underlayment wrinkles ride under the next layer, which later creates channels and lift points
- Overdriving or misplacing fasteners so punctures concentrate in the wrong areas or create pathways through deformities
- Skipping proper integration at roof-to-wall edges, chimneys, and valleys, then assuming "shingles will cover it"

- Cutting around vents and pipes without maintaining dependable overlap and directing water in a way that matches the flashing system

Eaves, rakes, and edge zones: where water tries hardest

Water behavior at edges is different. Wind can drive water sideways at eaves and along rakes, and the boundary layer effect helps water cling to surfaces longer. Underlayment here needs to be both well lapped and securely sealed or well-flashed depending on the system.

On eaves, starter strip details can set the stage for the whole roof's first course geometry. If you use a peel-and-stick starter strip or a specialized eave membrane, make sure it's applied correctly and fully adhered where intended. If the deck surface isn't prepared for adhesion, you can lose the benefits even though it looks fine from a distance.

On rakes, pay attention to how your underlayment terminates and how it integrates with rake flashing. If underlayment ends too high, too low, or without the correct overlap, water can find a seam and run where you did not plan it.

A practical tip: after placing the first few sheets, stop and look along the lap lines with a critical eye. The roof is still flat and correctable. Once shingles go on, correcting underlayment placement is far more expensive and much messier.

Handling transitions, ridges, and multiple planes without leaving gaps

Roofs rarely form a single perfect rectangle. You'll hit dormers, sidewall intersections, chimney offsets, and roof planes with different slopes.

At each transition, treat it like a mini roof system. Underlayment must transition cleanly, maintain overlap, and avoid creating voids where water can pool. When slopes change, water can change direction too, and seams can shift relative to the flow path.

Where two planes meet, you often want to ensure that laps allow water to run from the higher plane to the lower one without trapping at the seam. Avoid bridging a gap between sheets with a crease or a stretched piece that doesn't lie flat.

If you're working around a dormer, for example, you may need to create dedicated water paths using membrane pieces and careful layering up to the field underlayment. Don't rush that area. Dormer leaks are notoriously hard to chase because water can migrate behind trim.

Material behavior: temperature, stiffness, and how to avoid "installed but not bonded" problems

Underlayment is a material, not just a layer. Temperature affects how it lays flat and how adhesives bond.

In warm weather, some materials become more workable, but adhesives can also pick up dust more easily if you expose them longer before contact. In cold weather, membranes and synthetics can stiffen and resist conforming to corners. That can lead to micro gaps at edges, which are easy to miss during install but can turn into leaks later.

If the system uses self-adhered components, apply them when the product conditions are within manufacturer guidelines. Then, press firmly where required. Many people assume that "stuck" means "done." Contact quality matters. If you don't press enough, the membrane might look attached but not fully bonded at edges.

When possible, avoid installing in very high wind. If you must, keep sheets controlled, fasten promptly, and don't let wind lift laps before shingles go on.

Final thoughts that make the rest easier

Underlayment installation is less about one heroic moment and more about a thousand small decisions lining up. The deck prep, the lap direction, the fastening pattern, and the integration at edges and penetrations all work together.

If you're aiming for good results, focus on the parts that are hard to fix later: keeping seams clean, avoiding wrinkles, and respecting the instructions for valleys and transitions. When you treat underlayment as a system rather than a sheet you just place, the roof feels tighter, quieter, and more predictable once the shingles start going down.

And when something unexpected happens, like a late weather change or a deck that isn't perfectly smooth, you can usually get a better outcome by slowing down at the edges and details. That's where water will look for your shortcuts.