

Roof Blistering on Built-Up Roofs: Local Roofing Experts Weigh In

Built-up roofs (BURs) remain a trusted choice for many commercial buildings thanks to their durability, multi-layer protection, and cost efficiency over time. However, even the most robust systems are not immune to issues—and one of the most common is roof blistering. If you've spotted raised bubbles or spongy areas on your flat or low-slope roof, it's time to take a closer look. Below, local roofing experts explain what causes blisters on built-up roofs, how to respond, and when to call a licensed roofing contractor in Modesto for a professional assessment.

What is Roof Blistering on BUR Systems?



Roof blistering appears as raised, bubble-like formations in the membrane or surface of a built-up roof. BURs are typically composed of alternating layers of bitumen and reinforcing felts, topped with a protective surfacing like gravel or a reflective coating. Blisters form when gas or moisture becomes trapped between layers or within the substrate and expands under heat. While some small, stable blisters can be benign, others can lead to reduced performance, premature aging, and leaks—especially when they open or intersect with seams.

Common Causes of Blistering

- **Trapped moisture:** Water vapor from wet insulation, damp decking, or humid installation conditions can become sealed into the system. When heated by sunlight, it expands and pushes upward.
- **Poor adhesion:** Inadequate bonding between layers due to incorrect temperatures, rushed application, or contaminants (dust, debris, oils) increases the risk of voids where air can collect.

- Temperature cycling: Central California's warm days and cool nights cause expansion and contraction. Over time, thermal stress can enlarge small voids into visible blisters.
- Aging and UV exposure: As bitumen ages, it oxidizes and becomes more brittle. This can weaken adhesion and make the system more susceptible to blister formation.
- Incompatible materials: Mixing products from different manufacturers or using coatings not designed for BUR can create adhesion failures.
- Substrate movement: Settling, structural flexing, or traffic on the roof can stress the membrane and contribute to blistering.

Why Blistering Matters

Not every blister requires immediate repair. However, blisters that are growing, located near seams, or appearing in clusters can compromise waterproofing. When blisters rupture, they can expose reinforcement felts, accelerate UV damage, and create entry points for water. Persistent moisture can degrade insulation R-values, raise energy costs, and undermine [roofing company Turlock CA](#) commercial roof warranties if maintenance requirements aren't met. An insured commercial roofer with emergency roofing experience can help you differentiate between cosmetic blisters and defects that warrant action.

Assessing Blisters: DIY Observations vs. Professional Inspection

You can safely perform visual checks from access points or walkways, but avoid stepping directly on suspect areas. Note the size, location, and pattern of the blisters. Look for related issues such as open seams, loose gravel, ponding water, and cracking. Next, contact a Modesto CA roofing company for a comprehensive evaluation. Certified roof technicians use moisture meters, infrared scans, and core sampling to determine whether moisture has infiltrated the system and how widespread it is. Reputable BBB roofing companies will document conditions with photos, provide transparent options, and reference manufacturer guidelines that align with commercial roofing reviews and best practices.

Repair Options for Built-Up Roof Blisters

- Leave intact, monitor: Stable, dry blisters that aren't near seams, penetrations, or high-traffic areas can often be left alone and observed during seasonal maintenance.
- Targeted repairs: For ruptured or high-risk blisters, a licensed roofing contractor in Modesto may cut, dry, and re-adhere the affected area, installing new plies and surfacing per manufacturer standards.
- Coating and reinforcement: In some cases, a compatible elastomeric or asphaltic coating with fabric reinforcement can seal minor defects, extend service life, and improve UV resistance.
- Partial replacement: If testing reveals widespread moisture, removing saturated sections—insulation, felts, and surfacing—then rebuilding to spec may be the most reliable path.
- Full system retrofit: When the roof is at end-of-life or blisters are symptomatic of systemic failure, consider a roof-over or full replacement. A Central California roofing contractor experienced in code compliance can help select a system that fits budget, climate, and long-term performance goals.

Prevention: Building a Blister-Resistant BUR

- Control moisture at the source: Ensure the deck is dry, roof drains function properly, and there are no active leaks before installation. Avoid installing over damp insulation.
- Proper application temperatures: Hot bitumen must be applied at the manufacturer's specified range to ensure full adhesion and embedment of felts.
- Cleanliness is critical: Substrates and plies should be free of dust, frost, oils, and debris during installation.

- Ventilation and vapor controls: Use appropriate vapor retarders in high-humidity interiors and confirm transitions at walls and penetrations are sealed correctly.
- Regular maintenance: Semiannual inspections by local roofing experts can catch small defects early and protect commercial roof warranties. Documentation of maintenance is often required by manufacturers.
- Traffic management: Limit foot traffic, use walk pads, and train service personnel on roof protection to reduce mechanical stress.

When to Call in the Pros

If you see rapid blister growth, ruptured bubbles, leaks, or soft spots, it's time to schedule an inspection. An insured commercial roofer with emergency roofing experience can stabilize the area, protect interior assets, and outline next steps. Look for a Modesto CA roofing company with certified roof technicians, strong commercial roofing reviews, and the ability to coordinate with manufacturers on warranty claims. BBB roofing companies with a consistent track record often provide clearer scopes, better documentation, and long-term service partnerships.

Understanding Warranty Implications

Most commercial roof warranties require routine maintenance, prompt repairs, and adherence to approved repair methods. DIY puncturing or cutting of blisters can void coverage. Before authorizing repairs, confirm whether the roof is under a manufacturer's warranty and whether your Central California roofing contractor is approved to perform warranty work. Keep all inspection reports, photos, and invoices for your records.

Budgeting and Lifecycle Considerations

Addressing blistering early is cost-effective. Minor repairs and strategic coatings can delay major capital expenditures. However, if moisture penetration is extensive, continuing to patch may be false economy. A licensed roofing contractor in Modesto can provide a lifecycle analysis comparing ongoing maintenance costs to the benefits of reroofing or a recover system. Consider energy impacts as well—improved insulation and reflective surfacing can reduce cooling loads, which is valuable in Central California's climate.

Final Thoughts

Built-up roof blistering is common, manageable, and often preventable with good installation practices and proactive maintenance. Partnering with local roofing experts who understand regional weather patterns, code requirements, and manufacturer standards is the best way to protect your asset. Whether you need a quick assessment, urgent repairs, or long-term planning, choosing an insured commercial roofer with proven emergency roofing experience and solid commercial roofing reviews will help ensure your roof performs as intended for years to come.

Questions and Answers

Q: Are all roof blisters on BURs dangerous? A: No. Small, stable blisters away from seams and penetrations may be harmless if monitored. Blisters that are growing, ruptured, or near critical details warrant repair by a certified roof technician.

Q: Can I puncture blisters to release pressure? A: Avoid DIY puncturing. Cutting blisters without proper drying, re-plying, and surfacing can invite leaks and void commercial roof warranties. Contact a Central California roofing contractor for proper remediation.

Q: How quickly should I act if I see blistering? A: Schedule an inspection promptly—especially if leaks, soft spots, or multiple blisters appear. An insured commercial roofer with emergency roofing experience can mitigate risk and prevent further damage.

Q: What credentials should I look for in a contractor? A: Seek a licensed roofing contractor in Modesto or a reputable Modesto CA roofing company with certified roof technicians, positive commercial roofing reviews, and recognition among BBB roofing companies. Ensure they understand BUR systems and warranty protocols.