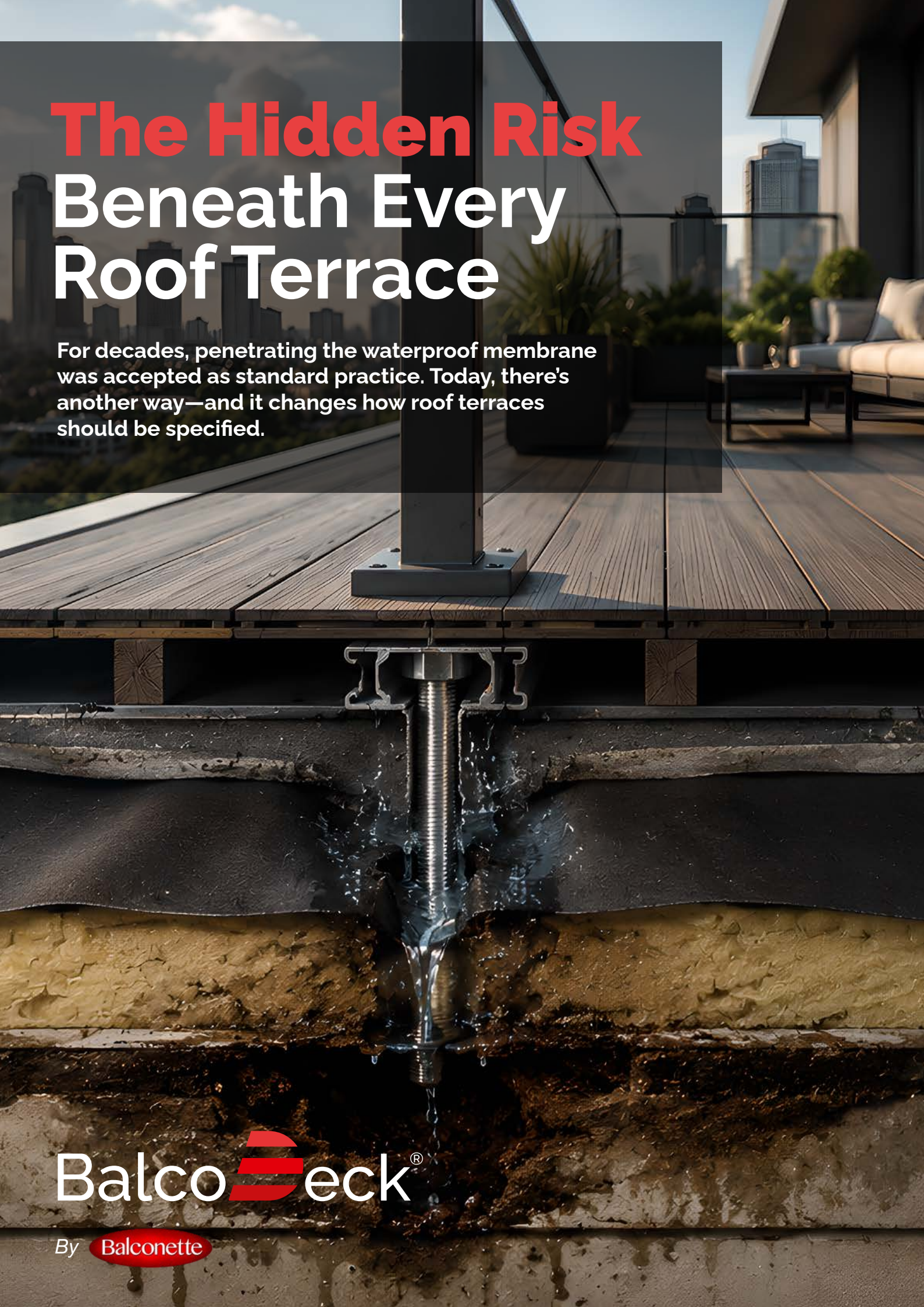


The Hidden Risk Beneath Every Roof Terrace

For decades, penetrating the waterproof membrane was accepted as standard practice. Today, there's another way—and it changes how roof terraces should be specified.

Balcoteck®

By Balconette



If this terrace leaks in ten years, who's left with the problem?

Most flat roof balustrades are fixed by bolting posts or base tracks through the waterproofing membrane and sealing around them. It's how roof terraces have traditionally been built for decades.

But ask yourself one simple question: if water gets in five or ten years from now, who will be left with the problem?

In many cases, there isn't a clear answer. The membrane warranty may already have been invalidated by the penetrations. The balustrade installer completed their work. The roofing contractor signed off the waterproofing. Each party fulfilled their own contractual obligations.

Every penetration creates another interface to maintain.

When a leak appears, everyone can point to someone else's scope of work. The property owner is often the one left trying to resolve the problem.

Waterproofing Warranty Guidance

Balconette.co.uk/BDWP

Roof terrace defects rarely appear at practical completion. A detail can perform well at handover — the conditions it's exposed to over time gradually test the interfaces.

Why the traditional approach is no longer good enough

For decades, there was no other way to create a secure structural connection — so everyone drilled, everyone sealed, and everyone accepted it as the industry standard.

But the problem remains: a sealant is not a waterproofing system.

A roof membrane is designed to protect the building long-term. Once it is penetrated, the seal around the post becomes the critical point. Steel, aluminium, membrane and sealant all move, age and weather differently. Over time, these materials can separate—not because the installation was poor, but because the sealant is being relied upon to do a job it was never designed for.

Sealant is a maintenance product, designed to be inspected and renewed. It is not intended to provide a permanent waterproof barrier for the life of a building.

Drilling through a membrane and sealing the gap simply asks two very different materials to share the same responsibility.

Protect the membrane.
Protect the warranty.
Protect the building.

The hidden warranty risk

Most waterproofing warranties cover the membrane as originally installed — not later modifications. Many require any penetration to be approved by the manufacturer and installed using specific details. Unapproved penetrations may be excluded from cover altogether.

Because balustrades are often installed after the roof has already been signed off, this approval process can easily be missed. If a leak develops years later, identifying whether it is a membrane failure or a penetration failure can quickly become complicated — and the responsibility for resolving it may be unclear.

What the standards already say:

- NHBC guidance states that fixings must not compromise the waterproofing system.
- LABC guidance advises against fixing through the waterproofing layer.
- Approved Document K and BS 6180 define the structural requirements for balustrades — they do not require penetrative fixing through the building fabric.



A sealant is not a membrane.

In many projects, drilling through the roof isn't challenged — it's accepted by default, despite the risks it creates.

The problem doesn't appear at handover

Roof terrace leaks rarely appear at practical completion. A detail can pass inspection and perform well for years before movement, weathering and thermal changes begin to expose weaknesses around a fixing.

Because the waterproofing layer is hidden beneath decking and finishes, early deterioration goes unnoticed. By the time water appears inside the building, the failure may have been developing for years.

That delay is what makes the problem so difficult to resolve.

Under the Building Safety Act 2022, the need for clear responsibility and traceable information has never been more important. The "golden thread" requires key design and construction information to be maintained throughout the life of the building.

But a penetrative balustrade fixing installed after the waterproofing has been completed can create a gap in that record. The membrane is specified. The waterproofing installation is certified. The later penetration by another trade may not be.

The critical interface between the balustrade, the fixing and the waterproofing system is often where the risk lies.

The structural engineer designs the fixing. The waterproofing contractor certifies the membrane. The balustrade installer installs the system. Each party may have completed their own scope correctly — but the connection between those scopes is where the problem begins.

When water gets in, everyone may have completed their own part correctly — but the building owner is the one left dealing with the consequences.



The defect is often years old before anyone sees it.

Can Building Control Require Penetrative Fixings?

Balconette.co.uk/BDBC

Not every detail is designed. Some are inherited.



BalcoDeck® is a non-penetrative balustrade and decking solution using a patented substructure — no drilling, no sealing holes, no reliance on penetrating the membrane to stay secure. The membrane remains intact throughout installation.

The substructure does the heavy lifting. Instead of transferring loads through isolated fixing points, BalcoDeck® creates an independent structural frame that supports the balustrade and finished deck, tiles or flooring system — distributing loads across the structure while managing wind and uplift forces.

The unique foot design adapts to the natural fall of the roof. BalcoDeck® accommodates this slope while creating a level, stable platform above. Water continues to drain exactly as the roof was designed to do — flowing beneath and around the system towards existing outlets without obstruction.

The result: a secure roof terrace system that leaves the waterproofing exactly as it was intended — complete, continuous and protected.

Good detailing reduces future liability.

BalcoDeck® Patent

Balconette.co.uk/BDPT

BalcoDeck® Typical Details

Balconette.co.uk/BDTD

Certification matters

The homeowner or developer whose question opened this brochure got their answer: a single Certificate of Compliance at handover, confirming structural performance and membrane integrity — while keeping the waterproofing warranty intact.

Every BalcoDeck® installation is completed with the same certificate, confirming two critical elements:

Structural performance — the installed system has been designed and verified to resist the required wind loads and lateral forces acting on the balustrade, based on site-specific calculations to BS EN 1991-1-4, BS EN 1990 and BS 6180.

Waterproofing integrity — the membrane has not been penetrated during installation, supported by a pre-installation survey and documented checks confirming continuity.

That certificate provides a clear record at handover and beyond. It gives building control the information needed for sign-off and provides owners, developers, and future stakeholders with documented evidence of how the roof terrace was installed — without relying on separate records from multiple trades.

Certificate of compliance at a glance:

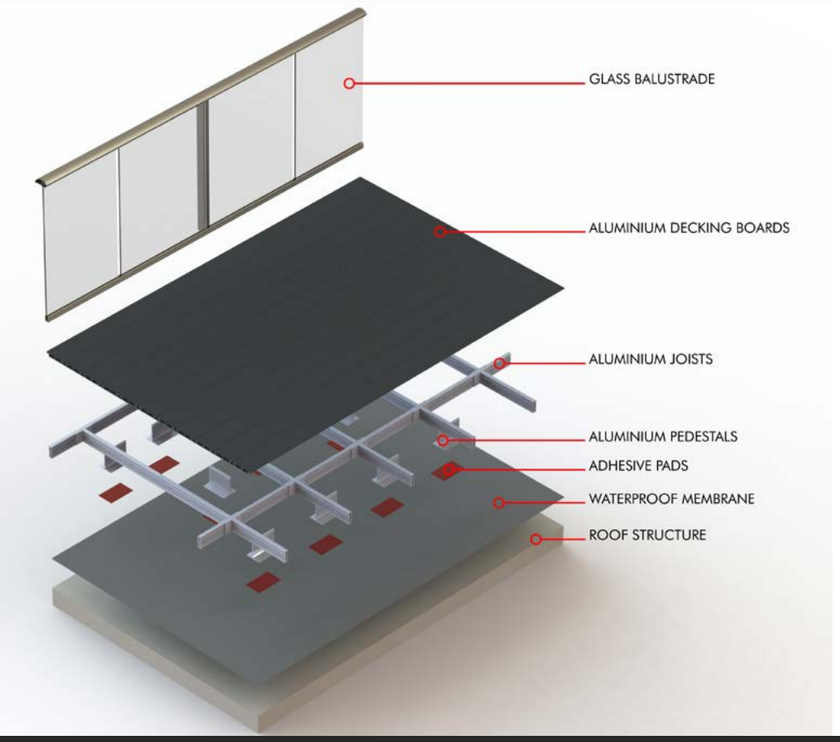
- Structural compliance
- Balustrade performance verification
- Site-specific wind load calculations
- Slip resistance confirmation
- Membrane integrity documentation

Sample Certificate of Compliance

Balconette.co.uk/BDCOC

BalcoDeck® Specification Sheet

Balconette.co.uk/BDSS



BalcoDeck®

The assembly behind the certificate — engineered, not guessed.

Structural compliance. Waterproofing integrity. One certificate brings both together.

Five things that determine whether a roof terrace is ready to move forward

Before any design work begins, five factors should be checked to establish whether a flat roof project is genuinely viable.

- **Waterproofing —** is the membrane condition and installation history documented?
- **Structure —** has the roof been assessed for the additional loads from decking, balustrades and occupancy?
- **Planning —** has the required consent been considered? Roof terraces often require approval, even where the existing roof remains unchanged.
- **Access —** can materials be delivered and installation completed safely, particularly on taller or constrained sites?
- **Budget and timeline —** are they realistic for the full scope of work, not just the visible elements?

Is your roof ready?

A five-minute self-check across these five areas is available through the Roof Terrace Readiness Scorecard — worth completing before committing design time and budget.

Test your project — 5 minutes

Balconette.co.uk/BDRS



The best way to solve a problem is not to create it.

BalcoDeck®



BalcoDeck®

By Balconette

A secure, compliant roof terrace system that protects the integrity of the waterproofing beneath.

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