

# Why Damp Keeps Coming Back After Repairs

Persistent dampness poses a significant challenge for homeowners and professionals. Despite repeated interventions, the problem frequently recurs within months. The core issue is clear: recurring damp arises primarily from the incorrect identification of the underlying moisture mechanism and inadequate detailing at interfaces, rather than a failure of specific products or membranes.

Fundamentally, most failures occur because the initial investigation fails to identify the true moisture ingress mechanism. Moisture will exploit any weakness in diagnosis or detailing. Effective resolution mandates a systematic, evidence-based investigation, meticulously applying principles such as those outlined in BS 8102:2022, which provides a framework for robust investigation and risk management in all building structures, combined with scrupulous attention to construction details, especially at junctions and interfaces.

This presentation, drawing on decades of building pathology experience, provides an evidence-based, diagnostic approach to understanding why damp repairs often fail, outlining the proper investigative methodology required for lasting solutions.



# Five Common Reasons Damp Repairs Fail

Understanding why previous work hasn't succeeded is the first step towards effective remediation. These failures typically fall into identifiable patterns that proper investigation would have prevented.



## Wrong Mechanism Identified

Treating rising damp when the actual issue is lateral penetration, or vice versa, often due to an incomplete assessment of external factors such as ground levels, defective render, or inadequate roof drainage. Without correctly identifying whether moisture arrives via capillary action, direct penetration, condensation, or hygroscopic salts, any intervention addresses the wrong problem entirely. Crucially, overlapping mechanisms can coexist, necessitating their distinct separation before effective remedial works can be specified.



## Hygroscopic Salts Ignored

Contaminated masonry continues drawing atmospheric moisture even after the original water source has been rectified, leading to persistent damp patches. Salts like chlorides and nitrates, often derived from groundwater or former contaminants, were not tested for or managed. If not correctly removed or isolated, these hygroscopic salts can migrate into new plaster, render, or door and window reveals, causing "phantom damp" that confounds subsequent contractors and defeats standard treatments. This underscores the principles highlighted in BRE Digest 245 regarding salt management.



## Bridging of Barriers

DPC or tanking systems are compromised by mortar snots, plaster bridging, or debris in cavities, frequently occurring with internal waterproof renders, tanking slurries, and replastering systems. The membrane itself may be functionally perfect, but water bypasses it through paths created during installation or via materials where correct set time, specified thickness, adequate curing, or isolation detailing was not achieved. Door and window frames are also common transfer points where bridging can occur.



## Junction Detailing Weakness

Failures are particularly prevalent at critical interfaces such as wall-to-floor junctions, around service penetrations, or where changes in construction type occur. These transitions represent the highest-risk areas for failure in any damp-proofing scheme. They are frequently treated as afterthoughts rather than carefully designed details, directly contravening the emphasis placed by BS 8102:2022 on meticulous interface detailing and continuity of waterproofing protection.



## Non-Maintainable Basement Systems

Type C (drained cavity) systems installed without proper access for inspection and maintenance are prone to failure. BS 8102:2022 explicitly requires that maintainability, inspection access, and future servicing provisions be incorporated into the design of such systems. Failure often results from design and access limitations that prevent necessary upkeep, rather than from an inherent flaw in the membrane performance itself. Many installations bury components behind finishes, rendering future servicing impossible and system failure inevitable.

# What Proper Damp Investigation Looks Like

A comprehensive survey follows a systematic methodology that separates symptoms from causes and identifies all contributing factors before recommending solutions.

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## Initial Phone Consultation

A detailed discussion led by a qualified surveyor or technical specialist, covering symptoms, building age and construction, previous remedial work attempted, and seasonal variations. This crucial step scopes the investigation properly and avoids premature solution recommendations.

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## Moisture Mechanism Separation

Rigorous distinction between capillary rise, penetrating damp, condensation, construction moisture, and hygroscopic effects. Pattern recognition combined with environmental readings is essential for separating distinct, often coexisting, mechanisms. Incorrect separation directly leads to inappropriate specifications and recurrent failures.

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## Salt Analysis When Relevant

Laboratory testing of samples from affected masonry is selectively deployed where patterns suggest hygroscopic contamination. Quantified results inform appropriate material specification, detailing, and management strategies, rather than solely guaranteeing cosmetic eradication or assuming full elimination of all visual symptoms.

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## Site Inspection—Internals and Externals

Systematic examination of affected areas, alongside critical external factors: ground levels, drainage, render condition, roof and guttering, subfloor ventilation, decking, raised flower beds, patios, air brick obstruction, driveway gradients, surface materials (asphalt/concrete), and vegetation (e.g., ivy, root systems). Photography and moisture meter readings at multiple heights and locations establish an evidential baseline.

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## Thermal and Humidity Context

Thermal imaging identifies cold spots, thermal bridging, and hidden moisture patterns. Humidity logging over time reveals whether condensation contributes to the problem, critically assessing condensation risk, surface temperature dynamics, and humidity interaction in line with BS 5250 principles. The focus remains strictly on diagnosis.

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## Clear Findings and Targeted Recommendations

A written report explaining the mechanisms identified, contributory factors, and prioritised remedial options with realistic expectations. Poor surveys, unclear findings, or generic specifications often create larger long-term problems, including unnecessary expenditure, repeated interventions, and potential disputes. Good reports provide specifications detailed enough for competitive tendering.

This investigative rigour, combined with detailing that respects building physics and follows BS 8102 guidance, delivers solutions that actually work long-term rather than merely postponing the next failure.