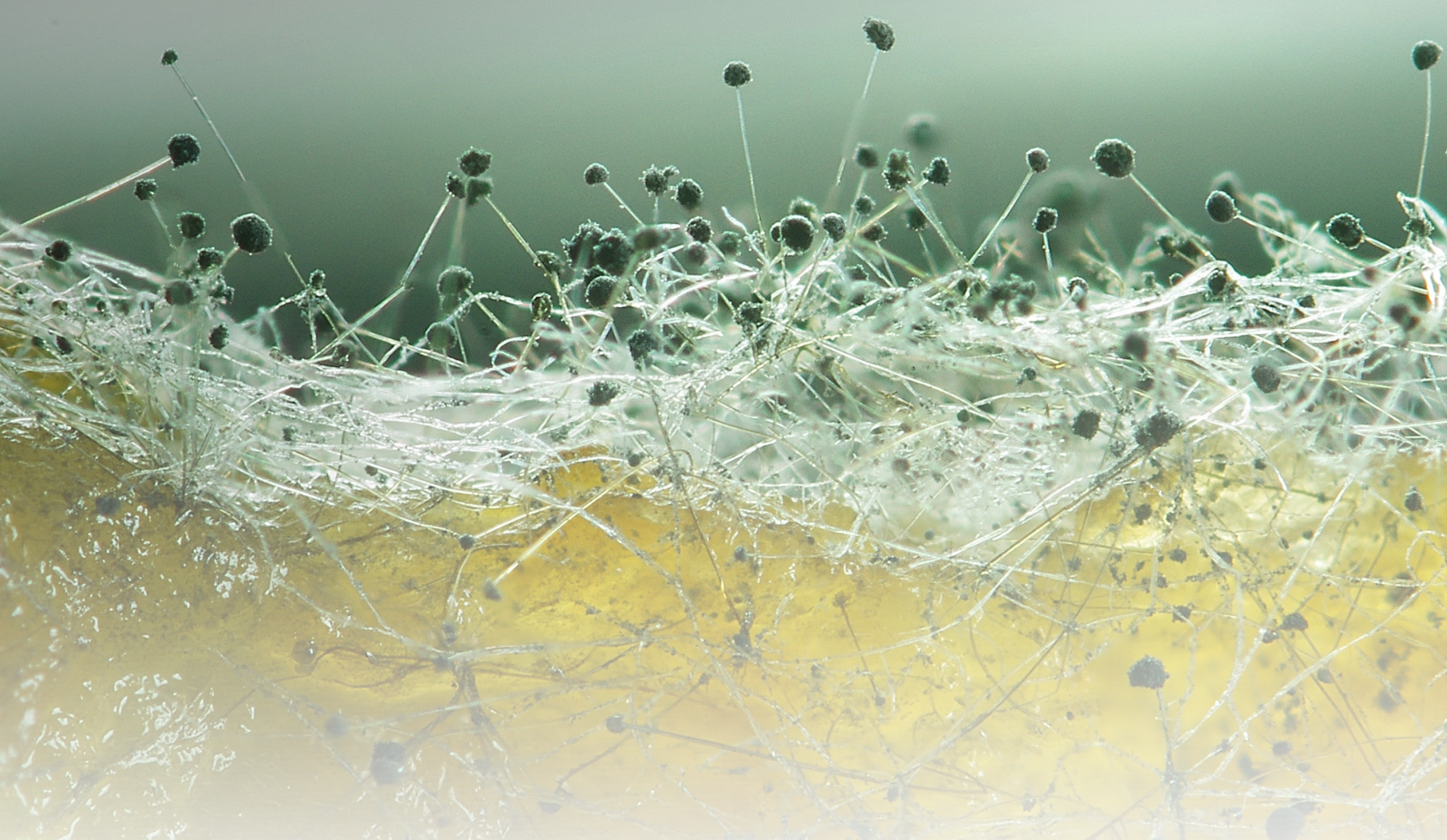


Mould Mitigation at High-Value Residential Property



CHALLENGE

High-value property sale halted due to suspected mould and health concerns.

SOLUTION

Detailed environmental sampling and full substrate removal implemented.

RESULT

Acceptable indoor air quality restored and dispute settled.

ENSURING RESIDENTIAL SAFETY THROUGH AIR SAMPLING

Mould growth within buildings presents significant health, commercial and legal risks. Increasing awareness among property owners, purchasers and legal advisers means that indoor environmental issues can directly affect high-value transactions.

In this case, AWN Consulting, a Trinity Consultants Ireland team, was appointed as independent environmental consultant following legal proceedings relating to a multi-million-euro residential property. A family member of the purchaser, who suffered from chronic asthma, experienced a severe allergic reaction while visiting the basement. A musty odour was noted in the finished basement, which had been constructed using timber panelling fixed to plasterboard and stud work over a tanked concrete structure.

Both parties agreed to appoint an independent consultant to assess the alleged mould issue and provide an expert technical opinion.

CHALLENGE

Contracts for the sale of a high-value residential property had been exchanged; however, completion was halted when the purchaser alleged that the basement contained harmful mould contamination following an acute allergic reaction during a site visit.

Despite being finished to a high standard, the basement presented with a persistent musty odour. The purchaser's adviser concluded that the property may be unfit for habitation, while the developer disputed the claim. The matter escalated to a legal dispute, where both parties agreed to appoint an independent consultant.

Key challenges included determining whether elevated airborne mould spores were present, establishing potential health risks, identifying contamination sources, and producing an objective, defensible expert report.

SOLUTION

AWN undertook a structured, staged mould assessment and remediation programme.

An initial survey using Rose Bengal Chloramphenicol agar plates indicated elevated mould spore concentrations in the basement. A detailed survey using a calibrated SAS Super-180 volumetric air sampler confirmed significantly elevated airborne fungal spore levels.

A two-stage remediation strategy was implemented. Stage 1 involved HEPA vacuuming, application of Trigen anti-fungal agent, controlled cleaning procedures and full PPE usage. Although airborne spores were reduced by 40–50%, concentrations remained elevated.

Stage 2 involved removal of all timber panelling and plasterboard, identification of significant concealed mould growth, repair of failed tanking, mechanical scrubbing and sanitising of all surfaces, thorough drying, final HEPA cleaning and reinstatement of new materials. Validation testing was conducted upon completion.

RESULT

Validation sampling confirmed that airborne mould spore concentrations were reduced to acceptable background levels.

The structured remediation approach, including removal of contaminated substrates and repair of moisture ingress pathways, proved necessary to achieve lasting results. A comprehensive technical report formed part of the legal settlement process, enabling resolution of the dispute and completion of the property transaction.

This case demonstrates the importance of independent assessment, robust remediation methodologies, and validation testing in managing indoor environmental risk.

ABOUT TRINITY CONSULTANTS

Trinity Consultants, a leading global environmental consulting firm, provides services and solutions in the EHS Regulatory Compliance, Built Environment, Life Sciences, and Water & Ecology markets. Founded in 1974, Trinity has the technical expertise, industry depth, and capabilities to help clients achieve their goals across the natural and built environments.