DAMP & NOULD GROWTH

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HEALTH

- Increased risk of respiratory symptoms, Infections, Asthma and poor health.
- A Damp property is more expensive to heat and creates a cycle of problems due to not being able to heat a property adequately.
- Inhaling or touching mould spores may cause allergic reaction, rashes, sneezing and coughs.
- Psychological effects of damp/could home environment and damage to possessions, clothing and decorations.
- Cost and time to remedy as may necessitate a temporary or sometimes permanent move for a tenant.
- Loss of rental income and stress for all.

STATISTICS

- YOUGOV: 18% of the Population are living in Cold, Damp Homes.
- In February 2019, the BRE Trust found over 3 and a half million homes with Cat 1 Hazards which equated to roughly 15.3% of the Housing Stock.

LEGAL REQUIREMENTS

- Expectation that homes do not typically suffer from damp and mould (HHSRS)
- Need to ensure no Category 1 (or 2) hazards (excess cold, heat, damp and mould etc)
- Homes (Fitness for Human Habitation) Act commencement of tenancy
 Increasing use of firms seeking compensation on behalf of tenants
- Minimum Energy Efficiency Standard (MEES) Band E although need to be aiming higher.
- New Decent Homes legal requirement
- "Tenancy lifestyle", not a realistic defence in most cases.
- Cost of living crisis Many unable to heat home adequately due to rising costs etc

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DAMP & MOULD GROWTH CAUSES

1. Poor Ventilation 2. Water Leaks 3. Condensation 4. High Humidity 5. Structural Issues 6. Type of Heating & Poor Heating Control 7. Poor Insulation 8. Over Occupation

Introduction

- To identify the cause of dampness and mould growth, it's important to look for signs of moisture such as water stains, damp patches, or condensation. It's also important to address any sources of excess moisture such as leaks or high humidity levels.
- If you're unsure about the cause of dampness or mould growth, it's always best to consult with a professional such as a building inspector or a mould remediation specialist.

Understanding your property

- What is the age and type of building?
- How is the building constructed?
- In particular: Get to know wall types

https://www.designingbuildings.co.uk/wiki/Types of brick b onding

- Solid or Cavity walls?
- Is the heating system sufficient?

ENDERGRATION

Poor ventilation

When there is inadequate ventilation in a room, moisture can build up and lead to dampness and mould growth. What to look for:

- Missing, broken or inadequate mechanical ventilation to kitchens or bathrooms. Good Routine management.
- Defective or poorly designed windows.
- "Trickle vents" often present in newer windows but not used.
- Blocked or covered wall vents due to excessive cold.
- Investigate heat recovery/forced pressure systems

2. WATER LEAKS

Water Leaks

Leaks from roofs, pipes, or plumbing fixtures can cause dampness and mould growth if not repaired promptly. What to look for:

- Leaks from kitchen or bathroom drainage.
- Leaks from neighbouring properties.
- Condition of roof, gutters, rainwater and foul drainage externally.
- Leaks caused by defective flashings to the roof.
- Poor pointing to walls or chimney stacks.

3. CONDENSATION

Condensation

Condensation occurs when warm, moist air comes into contact with a cool surface, such as a window or wall. This can lead to dampness and mould growth if not addressed.

Common Remedies:

- Providing sufficient ventilation.
- Providing controllable and stable background heating.
- Providing fixed insulation to walls and windows.



High humidity

High humidity levels can also cause dampness and mould growth. This can be caused by activities such as cooking, showering, and drying clothes indoors.

What to look for:

- Over occupancy Increased source of humidity.
- Younger or older occupiers: Need to keep warm and closing off ventilation.
- Broken or insufficient mechanical ventilation to humid areas (Kitchen/bathrooms)
- Unvented tumble dryers.

High humidity - sources

- Rising costs of housing leading to more people sharing a property – extended families and HMOs. Moisture produced by 2 people at home up to 3 pints a day
- Bath/shower 2 pints/day
- Drying clothes indoors 9 pints/day
- Cooking/using a kettle 6 pints/day
- Washing clothes 2 pints/day
- Calor gas fires (increase in use) 4 pints/8hr
- Total: 26 pints/14.8 litres



Structural Issues

Structural issues such as cracks in walls or foundations can allow moisture to seep in and cause dampness and mould growth.

What to look for:

- Rising Dampness
- Cold Bridging
- Pointing and brickwork.

RISING DAMPNESS

Rising damp is a type of dampness that occurs when moisture from the ground rises up through the walls of a building. It typically occurs in older buildings with solid walls that do not have a damp proof course (DPC) or have a failed DPC.

The DPC is a layer of waterproof material, such as a plastic membrane, that is installed in the walls of a building to prevent moisture from rising up from the ground. If a DPC is missing or has failed, moisture can rise up through the walls and cause dampness, which can lead to mould growth, damage to plaster and paint, and even structural damage if left untreated.

Rising damp can be identified by the presence of a "tide mark" on the wall, usually up to one metre above ground level. This mark is caused by salts that are deposited on the surface of the wall as the moisture evaporates. Other signs of rising damp include damp patches on walls, peeling wallpaper, and a musty smell.

To treat rising damp, a new DPC may need to be installed in the walls. This typically involves injecting a waterproofing material into the walls to create a barrier against rising moisture. It's important to address rising damp as soon as possible to prevent further damage to the building and to maintain a healthy indoor environment.



Cold Bridging

Cold bridging, also known as thermal bridging, occurs when a building's insulation is interrupted by a material that conducts heat, such as a metal beam, concrete slab, or poorly insulated window frame. This results in a pathway for heat to escape or enter the building, leading to thermal inefficiency and increased energy usage.

Cold Bridging

Cold bridging typically occurs in areas where there is a break in the insulation, such as around windows, doors, or at the junction between walls and roofs. It can also occur in areas where there is a difference in building materials, such as where a wooden floor meets a concrete foundation.

POINTING AND BRICKWORK

Pointing and brickwork

What too look for:

- Are there signs of failed pointing to external brickwork?
- Has a cement render plinth to the external wall failed or cracked? Often render can become blown or damaged from frost damage or continual leaks.
- Vegetation growing out of roof parapets, walls or valley gutters where leaks have been long standing.
- Large trees: Often structural problems can be caused by ground shift or root damage, especially if a tree has been recently felled.

Pointing and brickwork

What to look for:

- Concrete Sills: What condition are they in? Have they been re-cast or repaired? If so, look for a "drip groove" under the concrete sill – This diverts rainwater away from a wall beneath a window and if there is a damp patch under a window, this can be something to look for.
- Structural movement: Are any wall cracks looking new or are they expanding? Have you noticed any building works to the property or neighbouring properties?

6. TYPE OF HEATING & OOR HEATING CONTRO

Type of Heating & Poor Heating Control

Condensation is controlled by providing a stable and regular background heat.

Things to look for:

- Is the heating either too hot or not enough for tenants?
- Is there a room thermostat?
- Is the thermostat correctly positioned?
- Can the property maintain a comfortable background temperature?
- Are portable heaters used to supplement heating?
- Consider fuel types used some generate more humidity.

Type of Heating & Poor Heating Control

Possible remedies:

- Design new heating system if insufficient.
- Provision of a room thermostat <u>and</u> correctly positioning it.
- Education around use of thermostat i.e.. Try to keep regular background heating and not on/off cycles. <u>This is</u> often only acceptable if insulation is very good.
- Providing thermostatic radiator valves to balance heating between rooms with different use or occupancy.

7. POOR INSULATION

Poor insulation can result in cold surfaces, which can lead to condensation and dampness.

What to look for:

- Property construction pre 1946 mostly solid wall construction.
- System built or concrete construction (often in tower blocks)
- Windows larger timber single glazed double hung sashes in Victorian street properties.
- Metal "Crittal" type windows very prone to condensation around frames.

What to look for:

- Is the roof insulated?
- How is the roof constructed and what condition is it in?
- Are there problems associated with a flat roof such as poor insulation or ventilation?
- Learn about insulation methods: "Warm roof" or "Cold roof" depending on where insulation is placed.

Possible Remedies:

- Fixed Solid wall insulation (internal)
- Cavity wall insulation for cavity walls.
- Replacement windows and double glazing
- Secondary glazing systems
- Roof insulation or roof replacement.

Building Regulations: Insulation and thermal elements

 Making significant changes to thermal elements (walls, roofs or floors) would normally require Building Regulations approval and require the thermal insulation of the element to be upgraded to a reasonable standard. Walls are defined by <u>Regulation 2(3) of the Building Regulations 2010 as being</u> thermal elements.

Further guidance on this is available in <u>Approved Document L,</u> <u>Volume 1</u>



Over Occupation

Who occupies a dwelling?

- A family may have outgrown a flat which is insufficient in bedrooms for their needs.
- A family may be extended to care for older family members or younger family members during large parts of the day.
- Families with disabled family members or specific health needs may spend more time in the home and require adaptations to bathrooms or more space for medical equipment.
- Younger families may have more humidity generated by washing, cooking and drying clothes.

Statutory Overcrowding

- Statutory overcrowding is a term used in housing law to describe a situation where the number of people occupying a dwelling exceeds the legal limits set out in the Housing Act 1985 in the United Kingdom. The limits are based on the number and size of rooms in a dwelling, as well as the ages and relationships of the people living there.
- Statutory overcrowding can have serious implications for the health and well-being of the occupants, as well as for the structural integrity of the building. It can lead to issues such as poor ventilation, dampness, and mould growth, as well as increased wear and tear on the building's infrastructure.