Preventing Mould Growth in Cold Rooms

Revised Jan 2024

Mould Growth in Cold Rooms

Mould spores are naturally occurring and can be found in both indoor and outdoor environments. Under suitable temperature, moisture, and nutrient conditions, spores that have settled onto surfaces can develop into new mould colonies.

Cold rooms (also known as environmental chambers or walk-ins) often have high humidity conditions coupled with lower temperatures (condensation) which creates an environment favourable for mould growth.

Mould growth can lead to the deterioration of building materials/contents, poor indoor air quality, and health issues for occupants.

Mould growth on cold room sink and countertop

Mould growth on ceiling and fan unit in cold room

Signs of Mould Growth

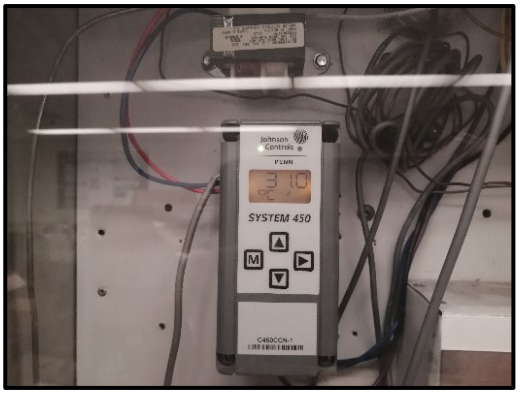
Observe for signs of water damage or excessive moisture (e.g., water staining; peeling paint; buckling, warped, wrinkled, and/or discoloured surfaces), high humidity (e.g., condensation on surfaces, rust). Check for obvious signs of leaks, condensation, flooding, and musty/earthy odours.

Mould often appears as small, dark brown/green/black rounded spots, however, some species of mould may be white in colour.

Preventing Mould Growth in Cold Rooms

Mould growth can be prevented by controlling moisture, ensuring proper ventilation, and removing materials that support mould growth.

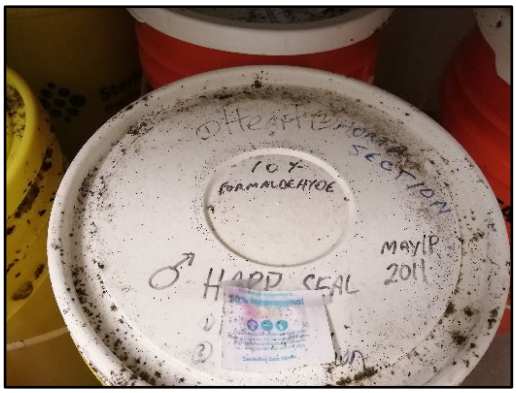
Infrastructure



Malfunctioning air conditioner unit in cold room resulting in elevated temperatures

- Maintain relative humidity below 50% if possible. Turn OFF any unnecessary humidification. Consider installing a fan inside the room to increase air circulation.
- Verify the air conditioner unit and temperature/humidity control system are functioning properly.
- Consider installing a plastic curtain near the door to reduce air mixing when the door is opened.
- Consider purchasing a refrigerator for more frequently used items and restocking it when needed.

- Avoid using wooden furniture in cold rooms. Use non-porous materials with a smooth surface (e.g., metal). Consider using wire shelving to promote air circulation.
- If using plastic furniture, avoid furniture with porous and pitted designs as these are difficult to clean.



Mould growth on waste pails in cold room

Housekeeping

- Remove any unnecessary sources of water (e.g., unused containers of water). Clean up spills promptly.
- Routinely clean surfaces with soap and water to prevent mould growth. This includes corners, walls, ceilings, containers, equipment, bench tops or other non-frequently used surfaces.
- Use moisture resistant materials. Do not store paper, books, cardboard, textiles, or other porous materials inside the cold room. Styrofoam is acceptable. If necessary, store items in plastic bins.
- Avoid placing items directly against the walls or on floors (leave a gap). Routinely remove unused items and avoid clutter.


Mould growth metal cart in cold room

Work Practices

- Report any water, plumbing leaks, ventilation issues, or system failures (e.g., exhaust fans).
- Ensure cold room door is shut tightly to prevent condensation from forming inside the cold room.
- Access to the cold room should be minimized, especially during summer months (e.g., planning work to reduce the number of in/out trips, nominating a single person access, etc.).

Do not try to clean or remove mould contamination unless you have received proper training by Environmental Health and Safety.

Contact Facilities

If you observe mould or water issues, report your concerns to your supervisor. Your supervisor (or designate) will then notify your local campus facilities group, such as Property Management.

For urgent water intrusion episodes (e.g., flood, plumbing leaks, backed up sewers) or system failures, contact your local facilities group.

St. George Facilities & Services:
416.978.3000

UTM Facilities Management & Planning:
905.864.8025

UTSC Facilities Management:
416.287.7579

If required, Facilities may request EHS to conduct a mould assessment of the affected area.

Visit the EHS mould webpage for more information:
https://ehs.utoronto.ca/mould