NTN 008.7

NASH TECHNICAL NOTE

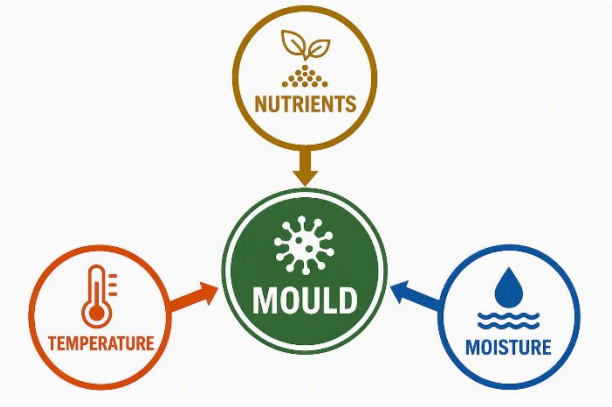
Building Envelope – Steel Framing & Mould Resistance

Steel framing can help create a healthy home with lower mould risk.

Choosing steel framing helps reduce mould risk by limiting sources of nutrient and moisture.

A Mould growth requires three essential components: a nutrient source, moisture, and a suitable temperature range.

Normal temperatures within buildings are generally in the range suitable for mould, meaning that when organic materials and persistent moisture are present, mould may readily develop.



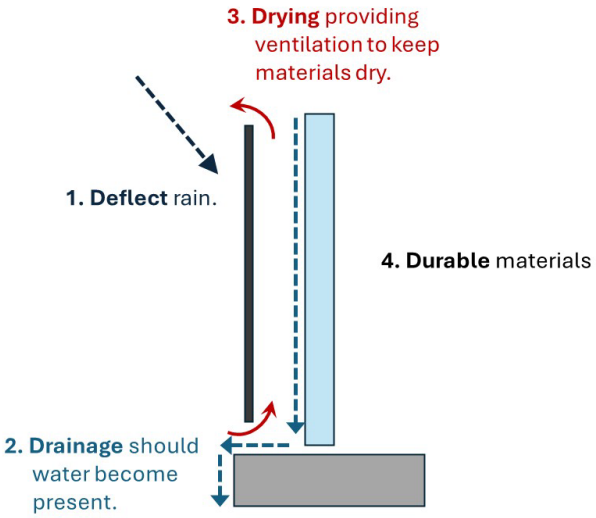
Selecting metallic coated steel framing can help reduce the risk of mould within walls and roof structures by limiting two of these components.

- Metallic coated steel is inorganic so does not provide nutrients required for mould growth.

- Metallic coated steel does not provide or sustain moisture as a source for mould.
    - Steel does not absorb or release moisture
    - Steel does not lock in construction moisture.
    - With appropriate detailing, any water from rain penetration or leaks can drain away without being absorbed into the framing.

Effective moisture management strategies in wall construction include.

- Deflection of rain: use claddings and flashings to keep the rain out.
- Drainage and Drying: ensure any moisture that does enter can escape and dry quickly by including cavities supplemented with building membranes of suitable permeance, refer to NASH Technical Note NTN 9 - NCC 2025 Drained and Ventilated Wall Cavities.
- Durability: select durable robust materials that do not retain moisture and allow water to drain or dry readily.



When combined with good moisture management design, steel framing can help toward creating a healthier, mould resistant home.

Building Envelope Technical Note series

This NASH Technical Note forms part of a series of notes discussing various aspects relating to the building envelope.