CONDENSATION MANAGEMENT FOR NON-COMBUSTIBLE EXTERNAL FACADES

SEALED FIXED CASSETTES | REAR VENTILATED FACADES | MATERIAL SELECTION
What are we covering today?

1. Do we need to manage water vapour and condensation?

2. Condensation Management Principles

3. What are the compliance options?

4. How do we meet the compliance requirements?
Managing condensation and water vapour

- Required within the NCC 2019
- Mould and bacteria
- Health
- Aesthetics
Condensation Management Principles

**TWO KEY AREAS**

**Water Barrier**
- Prevent the ingress of external water/moisture that may breach the cladding

**Vapour Permeable**
- Reduce the risk of condensation formation by allowing airborne moisture (water vapour) to escape
Compliance options: Deemed-to-satisfy (DtS)

DEEMED-TO-SATISFY (DtS) PROVISION

- Various parts relating to facades
- Key concerns;
  - F6.2: Pliable Building Membrane (water barrier)
  - AS4200.1 (assessment and classification of the materials)
  - AS4200.2 (installation of materials)
DtS compliance

- Satisfy DtS provisions F6.1 – F6.4
- External walls – pliable building membrane
  - Comply with AS4200.1; and
  - Be installed in accordance with AS4200.2; and
  - Be a vapour permeable membrane for building classes 1, 2 and 4 in climate zones 6, 7 and 8; and
  - Be located on the exterior side of the building frame
Climate zones requiring vapour permeable membranes

- Zone 1
- Zone 2
- Zone 3
- Zone 4
- Zone 5
- Zone 6
- Zone 7
- Zone 8

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Compliance options: FV6 Verification Method

- Hygrothermal modelling

How can you comply with FV6?

- Indoor and outdoor temperature and humidity conditions
- Heating and cooling set points
- Rain absorption
- Wind pressure
- Solar radiation
- Material hygrothermal properties
• Non-combustible
• PVDF paint finish
• Wide colour range
• Locally stocked
• Typically installed as a sealed fixed cassette

• Assists with condensation management by incorporating vapour permeable materials
• Helps to improve thermal efficiency
• Vapour control membranes and large amounts of airflow assist with condensation management

• Non-combustible

• Wide colour range

• Locally stocked

• Installed as a rear ventilated façade
• Non-combustible
• Powder-coated paint finish
• Wide colour range
• Locally stocked
• Can be installed as a rear ventilated facade or traditional facade
• Vapour permeable materials and large amounts of air flow assist with condensation management
• Cavity barriers and perimeter barriers
• Addresses vertical and horizontal fire separation
• Up to 120 minute fire integrity for cavity barriers behind external facades
• Up to 180 minutes for perimeter barriers behind curtain walls
• Addresses NCC criteria for management of fire separation requirements
• Key element of design for passive fire protection in external facade and curtain wall applications
• Compliant to Australian standards