



# Review façade vapor control layer & condensation risk

Review façade vapor control layer and condensation risk at envelope transitions with an interactive checklist, commentable, and able to export as PDF/Excel.

Project:

Date:

Filled by:

## Pre-Documentation Review

|   |                                                                                                                                                                                                                                                                                            |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Confirm vapor control layer (VCL) location at all envelope transitions against approved details; use redlined drawings and cross-trade workshops; acceptance: matches approved project specifications and authority requirements; evidence: signed markups and meeting minutes.            |
| 2 | Verify specified VCL materials' water vapour resistance ( $sd\text{-value}/\mu$ ) suit climate and assembly; method: review datasheets and hygrothermal rationale; acceptance: properties meet approved project specifications; evidence: manufacturer datasheets and calculation summary. |
| 3 | Check interface responsibilities at transitions (façade/roof/slab/windows) using a responsibility matrix; acceptance: no scope gaps; evidence: matrix signed by relevant contractors.                                                                                                      |
| 4 | Review sequencing and protection strategy for VCL continuity at transitions; method: look-ahead program and ITP; acceptance: uninterrupted installation path; evidence: program excerpts and ITP sign-off.                                                                                 |

## Materials & Compatibility

|   |                                                                                                                                                                                                                          |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5 | Obtain written confirmation of compatibility between VCL, primers, tapes, sealants, and substrates; method: manufacturer letter or test assembly; acceptance: documented compatibility; evidence: letter or test report. |
| 6 | Record product batch/lot numbers and expiry dates before installation; method: photo log; acceptance: within shelf life on installation date; evidence: photos of labels and site register.                              |
| 7 | Perform adhesion tests on representative substrates per manufacturer method; tools: spring scale or peel tester; acceptance: meets stated minimum (N/100 mm); evidence: test forms, photos, gauge readings.              |
| 8 | Verify fire performance and VOC/emissions compliance for enclosed spaces; method: certificate review; acceptance: per approved project specifications and authority requirements; evidence: certificates on file.        |

| Transition Detailing |                                                                                                                                                                                                                    |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9                    | Measure VCL overlaps and terminations at transitions; tools: ruler/scale; acceptance: $\geq$ manufacturer minimum; evidence: photos with scale and measurements.                                                   |
| 10                   | Check mechanical fixings at transitions do not puncture VCL in critical zones; tools: torque wrench; acceptance: fixings only at designated zones and torque per spec (N·m); evidence: torque records and photos.  |
| 11                   | Seal dissimilar-material interfaces with approved tapes or sealants; method: continuous bead/compression; acceptance: uniform width and adhesion, no fishmouths; evidence: close-up photos and installer sign-off. |
| 12                   | Detail all penetrations (pipes, anchors) with prefabricated boots or liquid flashing; method: shingled laps; acceptance: watertight and airtight; evidence: smoke-pencil check and annotated photos.               |

| Site Conditions & Substrate |                                                                                                                                                                                                                              |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13                          | Measure substrate moisture before priming; tools: calibrated moisture meter; acceptance: at or below manufacturer limit (% by mass); evidence: logged readings, device serial number.                                        |
| 14                          | Verify substrate cleanliness and smoothness; method: wipe test and visual; acceptance: dust-free, no sharp protrusions $>3$ mm; evidence: photos of cleaned areas.                                                           |
| 15                          | Record ambient temperature and relative humidity during installation; tools: thermo-hygrometer/data logger; acceptance: within product limits ( $^{\circ}\text{C}$ , % RH); evidence: timestamped readings and logger photo. |
| 16                          | Provide weather protection at exposed transitions; method: temporary covers/tent; acceptance: no wetting during curing; evidence: site photos during works.                                                                  |

| Installation Quality & Continuity |                                                                                                                                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 17                                | Ensure VCL continuity at floor-to-wall transitions; method: preformed corners or folded membranes; acceptance: no gaps or reverse laps; evidence: in-progress photos before concealment.            |
| 18                                | Tie VCL to window/door perimeters behind frames; method: membrane wrap with approved tape; acceptance: full adhesion around perimeter; evidence: sequence photos and inspection sign-off.           |
| 19                                | Maintain VCL continuity at roof-to-wall/parapet junctions; method: compatible tie-in with air barrier; acceptance: continuous plane without discontinuity; evidence: annotated photos and sketches. |
| 20                                | Form corners and changes of plane without overstretching; method: three-piece patch or preformed corner; acceptance: no cuts, blisters, or fishmouths; evidence: close-up photos.                   |

| Testing & Evidence |                                                                                                                                                                                                                                   |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 21                 | Conduct localized air leakage check at transitions; tools: smoke pencil with 10–20 Pa pressure differential; acceptance: no smoke ingress; evidence: video/photo record.                                                          |
| 22                 | Perform infrared thermography with indoor–outdoor temperature differential $\geq 10$ $^{\circ}\text{C}$ ; acceptance: no thermal anomalies indicating discontinuity; evidence: IR images with temperature scale.                  |
| 23                 | Complete dew-point calculation for critical transitions; inputs: indoor conditions and assembly build-up; acceptance: predicted surface temperature $\geq$ indoor dew point + 3 $^{\circ}\text{C}$ ; evidence: calculation sheet. |
| 24                 | Install humidity/temperature data loggers in representative concealed cavities (if accessible); acceptance: RH $\leq 80\%$ and downward trend after enclosure; evidence: logger graphs and download files.                        |

Comments:

Filled by:

Signature:

| Introduction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | How to use this checklist                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Review façade vapor control layer and condensation risk at envelope transitions is a focused quality-assurance process targeting the highest-risk junctions where walls meet roofs, slabs, frames, and penetrations. This checklist supports vapor barrier continuity, hygrothermal analysis, and dew-point assessment to prevent interstitial moisture, mold, and material degradation. It clarifies how the vapor control layer interfaces with the air barrier, insulation, and substrates at changes of plane, dissimilar materials, and service penetrations. You will confirm material properties (sd-value/<math>\mu</math>), compatibility of primers, tapes, and sealants, and verify on-site conditions with calibrated meters, infrared imaging, and smoke-pencil tests. The outcome is a documented, traceable record that transitions are continuous, appropriately located, and protected against condensation per approved project specifications and authority requirements. Use this interactive checklist to tick items, add comments, attach photos and readings, and export to PDF/Excel with an embedded QR for authentication.</p> | <p>1. Preparation: gather approved drawings/specifications, responsibility matrix, and manufacturer datasheets. Equip the team with PPE, thermo-hygrometer, moisture meter, peel tester, torque wrench, ruler/scale, smoke pencil, and infrared camera. 2. Set up the interactive checklist: create a project, add locations for each transition type, and assign reviewers. Enable photo, file, and measurement fields for evidence capture. 3. Use the checklist on site: tick items as inspected, record readings (<math>^{\circ}\text{C}</math>, % RH, N/100 mm), and attach annotated photos and short videos showing tests and lap measurements. 4. Collaborate in real time: @mention responsible trades, add comment threads, and set due dates. Resolve clashes by attaching marked-up details and compatibility letters. 5. Quality gates: enforce hold points before concealment, require supervisor review, and add owner/consultant spot checks where high-risk transitions are identified. 6. Sign-Off: capture digital signatures from installer, supervisor, and consultant. Lock completed items, recording names, timestamps, and device IDs for traceability. 7. Export and archive: export the commentable record as PDF/Excel, generate a QR code for authentication, and file by drawing location and transition type.</p> |