



Test façade pressure-equalization chamber continuity guide

Test façade pressure-equalization chamber continuity where applicable with an interactive checklist that's fully commentable and can export as PDF/Excel for rigorous QA documentation and sign-off.

Project:

Date:

Filled by:

Pre-Test Conditions and Safety

1	Confirm the assembly is a pressure-equalized rainscreen per drawings and mock-up; mark test elevations and compartments; capture annotated photos as evidence.
2	Verify weather: wind speed ≤ 3 m/s, no precipitation; maintain stable conditions ≥ 10 minutes; attach site weather log screenshot.
3	Establish safe access and edge protection per the method statement; photograph guardrails, harness tie-offs, and equipment tags; record permit numbers.
4	Notify stakeholders and control adjacent mechanical systems; isolate makeup/relief vents influencing the test area; upload permit-to-work confirmations.

Instruments and Calibration

5	Calibrate differential manometer (0–250 Pa, ± 1 Pa) on test day; log zero/span checks; photograph calibration certificate.
6	Prepare smoke pencil, borescope, flow hood or anemometer, ruler/feeler gauges, and sealing tapes; record inventory and expiry dates.
7	Set data logger sampling ≥ 1 Hz; time-sync logger and camera; upload a time-sync screenshot as evidence.

Chamber Isolation and Vent Verification

8	Identify chamber boundaries and compartmentation from drawings; mark extents with tape/paint pen; upload marked-up photos for each bay.
9	Mask unintended gaps to the interior for test control while keeping designed vent/drain slots open; record material lot numbers used.
10	Measure vent slot free area using a ruler/feeler gauge; compare with design; photograph measurements and note dimensions in mm.
11	Inspect cavity continuity with a borescope through removable caps/panels; document baffles/dividers; upload images confirming unobstructed pathways.
12	Verify gaskets, baffles, and fire stops are present and not blocking vents; capture close-up photos and supervisor acknowledgment.

Pressure Response Testing	
13	Install airtight pressure tap at top, mid, and bottom of the same chamber; soap-test fittings; photograph each port.
14	Apply a façade face pressure step to 50 Pa (or project-specified); record chamber pressure via manometer until steady state; save raw data.
15	Measure equalization time: time for chamber pressure to be within ± 5 Pa of exterior step; perform three repeats; log times in seconds.
16	Compare repeats at the same port; acceptance consistency within $\pm 10\%$ between repeats; attach plot overlays for verification.
17	Compare top/mid/bottom port responses within the same chamber; target time constants within $\pm 15\%$; upload comparative plots.
18	Perform release test: reduce to 0 Pa; confirm chamber returns within ± 5 Pa in similar time; save decay curve.
19	Monitor interior zone pressure during steps using a second manometer; acceptance: interior differential change < 2 Pa; upload synchronized logs.
20	Use smoke pencil along joints and penetrations during pressurization; acceptance: no smoke drawn to interior; capture video stills.
21	Check vent function with an anemometer at each slot during 50 Pa; record velocity (m/s) and note any zero-flow zones with photos.

Diagnostics and Remediation	
22	If responses are uneven, trace with smoke and ultrasonic leak detector along partitions; mark breaches; upload annotated photos.
23	Install temporary seals at suspect bypasses; retest to verify improved equalization; attach before/after plots and notes.
24	Remove debris or misplaced insulation blocking vents; bag and tag waste; photograph cleared vents and disposal record.

Documentation and Sign-Off	
25	Compile data logs, plots, photos, videos, and marked drawings; upload to the checklist record for each chamber and elevation.
26	Record acceptance per approved project specifications and authority requirements; register variances and nonconformances with corrective actions.
27	Capture digital signatures from contractor, consultant, and client; export PDF/Excel with embedded QR code; archive in the project CDE.

Comments:

Filled by:

Signature:

Introduction	How to use this checklist
Test façade pressure-equalization chamber continuity where applicable is a focused procedure for pressure-equalized rainscreen façades. This checklist helps verify chamber continuity, correct compartmentation, and functional vent paths using practical field tests such as differential pressure steps, smoke tracing, and flow confirmation. By validating chamber isolation from interior spaces and confirming cavity continuity, teams prevent wind-driven water ingress, pressure-pumping, and cladding distress. The scope covers pressure-equalized rainscreen assemblies only; it excludes sealed curtain walls and purely drained/vented systems unless the design specifies a pressure-equalized chamber. The outcome is a verified, documented chamber response that aligns with approved drawings and project performance criteria, reducing rework and enabling early corrective action where discontinuities or blockages exist. Use this interactive checklist on mock-ups and representative elevations to capture measurements, photos, and approvals in one place. Tick items, add comments, and export PDF/Excel via QR-secured links.	1. Preparation: review drawings, mock-up results, and method statement; gather calibrated manometer, smoke pencil, borescope, anemometer, sealing materials, PPE; confirm safe access and weather conditions. 2. Start interactive mode: create a record for elevation and compartment, assign team members, and attach relevant specifications and test pressure criteria. 3. Capture evidence: add time-synced photos, videos, and marked drawings directly to each item; note lot numbers and tool calibration details. 4. Record measurements: enter pressures and times from the manometer or upload logger files; plot overlays within the record for quick comparisons. 5. Collaborate: tag responsible parties in comments, resolve threads, and document corrective actions and retest outcomes without duplicating checklist items. 6. Export: generate an export as PDF/Excel, include photos, plots, and marked drawings; QR-secure the package for authentication and field retrieval. 7. Sign-Off: collect digital signatures from contractor, consultant, and client; lock the record and archive it in the project CDE.