



Test façade movement joints: opening range, seal continuity

Test façade movement joints for opening range and seal continuity using an interactive checklist that is commentable and can export as PDF/Excel for QA documentation.

Project:
Date:
Filled by:

Pre-Test Documentation and Setup

1	Confirm latest drawings/specifications show joint schedule (nominal width, design movement in mm/%) and sealant system; record document titles, revisions, and approvals.
2	Verify tool calibration: digital caliper (0.01 mm), crack gauge, displacement gauge (± 25 mm, 0.1 mm), thermohygrometer, pressure gauge; upload current calibration certificates.
3	Select test locations (mock-up plus representative installed joints at mid-span, corners, and interfaces); create a location plan with unique IDs and overview photos.

Access and Safety

4	Confirm access (MEWP/scaffold) and fall protection are inspected and tagged; record permits to work and toolbox talk attendance with signatures and photos.
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Environmental and Substrate Conditions

5	Measure ambient and substrate temperature and RH; confirm within manufacturer service range (e.g., 5–35 °C); log readings and time-stamp.
6	Verify sealant cure status per manufacturer guidance (e.g., thickness/time); perform tack-free or durometer spot check; record batch/lot numbers and expiry dates.
7	Confirm joint flanks are clean and dry; perform white-cloth wipe test; photograph cloth and joint edges to evidence cleanliness.

Visual Inspection of Sealant System

8	Measure joint width at 1 m intervals and transitions using a digital caliper; compare with schedule; acceptable within specified tolerance (e.g., ± 2 mm); record table.
9	Check sealant depth/profile using a pin depth gauge at discreet points; target per specification (often ~50% of width); neatly patch and photo-document.
10	Verify backer rod diameter is 25–30% larger than joint width; confirm closed-cell type or bond-breaker tape where required; retain offcut sample and photos.
11	Inspect bead for voids, pinholes, poor tooling, or contamination; no visible adhesion gaps; mark defects on elevation and photograph close-ups with scale.

Opening Range Test (Controlled Segment/Mock-up)	
12	Install displacement gauge across the joint using stable bases; zero the instrument; photograph setup with gauge reading visible.
13	Extend the joint to the design maximum opening (e.g., +25% or stated mm) using a screw jack/spreader with soft pads; hold 60 s; record displacement and observations.
14	Compress the joint to the design minimum (closing) without substrate contact; hold 60 s; note any bulging, extrusion, or debonding; record displacement achieved.
15	Cycle between min and max openings 10 times (5–10 s per cycle); acceptable if no adhesive failure, tearing, or cracking; capture video/photos each cycle.
16	After cycling, allow 10 min recovery; measure permanent set; acceptable recovery per specification (e.g., ≥90% original width); log values and photo evidence.

Seal Continuity and Water Verification	
17	Gently probe the bead with a rounded spatula along its length; uniform resistance with no soft voids; flag and photograph any suspect spots.
18	Conduct water-spray test at 200 ± 20 kPa for 10 min, nozzle 300–500 mm away; no interior dampness or drips; record pressure and video.
19	Use a borescope at accessible cavities to view back-of-seal; no daylight or gaps; save stills with location IDs.
20	Perform field adhesion peel test on a 150 mm tab at a non-critical area or mock-up; cohesive or substrate failure acceptable; document failure mode; repair cut.

Documentation and Close-out	
21	Compile readings, photos, calibration certs, product datasheets, and batch records; complete pass/fail checklist entries with inspector and contractor signatures.
22	Assign corrective actions for defects with responsible party and target dates; link items to locations; attach marked-up elevations.
23	Retest rectified joints using the same procedures; attach before/after media; record acceptance per approved project specifications and authority requirements.
24	Apply QR code label at approved joints linking to the final report; verify scan works from site and archive in project system.

Comments:

Filled by:

Signature:

Introduction	How to use this checklist
<p>Test façade movement joints for opening range and seal continuity ensures the envelope can move as designed while remaining watertight. This checklist focuses on movement capability, sealant continuity, and water tightness for façade expansion joints and curtain wall joints. You will confirm joint width, depth, backer-rod selection, and seal adhesion before controlled cycling and water-spray verification. By using calibrated tools, representative sampling, and practical field methods, teams reduce leakage risk, prevent adhesive failure, and protect finishes and interiors. The scope covers visual inspection, controlled displacement on mock-ups or accessible segments, adhesion peel checks, and targeted borescope reviews—without drifting into unrelated façade elements or structural testing. Acceptance relies on observing the design opening range without loss of continuity and no water ingress, per approved project specifications and authority requirements. Use this interactive checklist to tick tasks, add comments, attach photos and readings, and export results to PDF/Excel through a secure QR code link.</p>	<p>1. Preparation: gather drawings/specs, joint schedule, manufacturer datasheets, and calibration certificates. Mobilize tools (calipers, displacement gauge, thermohygrometer, spray rig), access equipment, PPE, and a borescope for concealed views. 2. Create test locations: assign unique IDs to mock-ups and representative joints, upload overview photos, and set acceptance criteria per approved project specifications and authority requirements. 3. Switch to interactive mode: open the digital checklist, select the location, and begin logging measurements. Attach photos/videos and note environmental readings directly in the fields. 4. Tick items as completed and add comments for any variance or defect. Tag responsible parties and propose corrective actions with target dates. 5. Export mid-test snapshots to PDF/Excel for coordination meetings. Share the link or QR code with stakeholders for quick access to current records. 6. After rectification, duplicate the test run and perform retests. Attach before/after evidence and mark items as passed when acceptance cues are met. 7. Sign-Off: capture digital signatures from the inspector, contractor, and consultant. Finalize the report, archive it to the project system, and verify QR authentication on-site.</p>