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# Inspect Sealant Adhesion Testing & Substrate Preparation

Inspect sealant adhesion testing and substrate preparation with an interactive checklist that is commentable and export as PDF/Excel. Log results for acceptance.

Project:
Date:
Filled by:

## Pre-Inspection Setup

1	Confirm approved sealant, color, and lot numbers match submittals; photograph cartridge labels and record batch/expiry for traceability.
2	Verify PPE and SDS on site: cut-resistant gloves, safety glasses, and respirator if using solvents; attach toolbox talk sign-in sheet.
3	Calibrate and stage tools: hygrometer/thermometer, surface moisture meter, depth gauge, steel rule, sharp blades, rollers; upload calibration certificates where applicable.
4	Select test locations representative of each substrate type; mark gridlines or coordinates and map them on plan photos for reference.

## Substrate Preparation Verification

5	Measure substrate moisture content with a compatible meter; confirm within manufacturer limits; record readings (% , °C surface temperature) with timestamped photos.
6	Perform solvent wipe test using approved cleaner and lint-free cloth; cloth should show minimal discoloration; photograph before/after and note solvent type.
7	Remove laitance, loose particles, and old sealant residues by brushing or grinding; vacuum dust; capture close-up photos of the cleaned profile.
8	Verify primer requirement for each substrate per manufacturer literature; if required, apply evenly; log primer product, lot number, coverage estimate (m <sup>2</sup> /L), and drying time.

## Joint Backing and Geometry

9	Measure joint width at three points using a steel rule; record values in mm and compare with drawings; attach annotated photos.
10	Verify backer rod type (closed-cell, non-gassing) and diameter 25–33% larger than joint width; photograph packaging and installed sample.
11	Install backer rod to uniform depth using a roller; confirm depth-to-width ratio per manufacturer guidance (typically 1:2) ±3 mm; record three depth checks.
12	Apply bond-breaker tape where backer rod is not feasible to prevent three-sided adhesion; photo evidence of placement.

Adhesion Testing (Hand-Pull Method)	
13	Record ambient conditions (°C, %RH, wind) before application; confirm within product limits; include instrument photos displaying readings.
14	Mask joint edges and gun a continuous bead; tool within open time; log application start/finish times and installer name; take close-up photos.
15	Form test tab by inserting a release strip to create a 75 mm pull tail; photograph tab geometry with a ruler for scale.
16	Allow cure per manufacturer schedule; record skin-over and minimum cure time (h); optionally record Shore A hardness; verify readiness before testing.
17	Cut a 25 mm wide strip with two parallel knife cuts to backing; avoid substrate damage; attach photo showing measured width.
18	Pull tab at approximately 180° and steady 50 mm/s rate; note force if using a spring scale; record adhesive vs cohesive failure percentages.
19	Repeat hand-pull at a minimum of three locations per substrate type; log each location ID, conditions, and photographic evidence.

Documentation and Acceptance	
20	Evaluate results against approved project specifications and authority requirements; identify acceptance (e.g., predominant cohesive failure) and flag any adhesive failures.
21	Record product and primer batch numbers, backer rod lot, crew, and inspector signatures; compile into a single test report with embedded photos.
22	For failures, document root cause (moisture, contamination, geometry); define corrective action (re-clean, re-prime, resize backing), cure interval, and retest date; obtain approvals.

**Comments:**

Filled by:

Signature:

Introduction	How to use this checklist
<p>Inspect sealant adhesion testing and substrate preparation ensures elastomeric joint sealants bond reliably to intended substrates under real site conditions. This checklist guides field inspectors and installers through substrate cleaning and priming, joint backing verification, and a consistent hand-pull adhesion test. By focusing on surface readiness, environmental control, and repeatable test execution, the process screens out contamination, moisture, and geometry issues that commonly cause adhesive failure or premature joint leaks. You will confirm backer rod sizing, depth-to-width ratios, primer requirements, and sealant cure status before pulling test tabs to assess cohesive versus adhesive failure. The outcome is traceable evidence: readings, photos, batch data, and sign-offs that support acceptance per approved project specifications and authority requirements. Use this interactive checklist on any façade or envelope mock-up area to document conditions, highlight nonconformances, and plan corrective actions. Start interactive mode now—tick items, add comments, and export results to PDF/Excel with a QR-secured link.</p>	<p>1. Preparation: Gather sealant, primer, cleaners, backer rods, masking, blades, depth gauges, hygrometer, and moisture meter. Review approved submittals and manufacturer instructions. Confirm PPE and SDS. Calibrate instruments, set location IDs, and agree on acceptance criteria per approved project specifications and authority requirements. 2. Using the Interactive Checklist: Open the checklist, start interactive mode, and progress item by item. Tick completions, attach photos/videos, and log readings in SI units. Use comments to flag nonconformances and assign actions. Generate live share links and verify authenticity with the built-in QR code. 3. Sign-Off: Review the auto-generated summary with results, batches, and evidence. Capture digital signatures from installer, inspector, and stakeholder. Export as PDF/Excel, distribute to the project team, and archive with QR-backed traceability for future audits and warranty files.</p>