



# Test façade protective coatings for adhesion and continuity

Test façade protective coatings or finishes for adhesion and continuity using an interactive checklist. Commentable workflow with calibrated readings and photos. Export as PDF/Excel.

Project:

Date:

Filled by:

## Pre-Test Planning and Documentation

|   |                                                                                                                                                                                                                               |
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| 1 | Confirm coating system, substrate types, elevations, and test areas against approved project specifications and authority requirements; attach drawings, ITP, and product TDS/SDS; capture photos of façades and label zones. |
| 2 | Verify the coating has cured per manufacturer TDS before testing; record application and test timestamps; acceptance: at or beyond stated minimum cure; evidence: TDS excerpt and time-stamped photos.                        |
| 3 | Confirm safe access (scaffolds, MEWPs, lifelines) and fall protection is in place; evidence: access permit and pre-use inspection photos; acceptance: access covers all selected test points.                                 |
| 4 | Check calibration certificates for DFT gauge, pull-off tester, and hygrometer; acceptance: valid within 6 months or per manufacturer; evidence: certificate numbers and photos.                                               |

## Environmental and Substrate Conditions

|   |                                                                                                                                                                                                                             |
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| 5 | Measure ambient temperature, relative humidity, and dew point using a hygrometer; verify substrate temperature with an IR thermometer; acceptance: substrate $\geq 3$ °C above dew point, RH $\leq 85\%$ ; attach readings. |
| 6 | Check substrate moisture on masonry/render using a capacitance or carbide meter; acceptance: $\leq$ manufacturer limit (typically $\leq 4\%$ by mass); evidence: instrument reading photos and location tags.               |
| 7 | Confirm surface cleanliness and dryness at test points by wipe and tape checks; acceptance: no visible dust, chalking, or moisture transfer; evidence: close-up photos of wipes/tape.                                       |
| 8 | Select representative locations: minimum 1 test per 50 m <sup>2</sup> and each orientation/elevation; include edges, penetrations, and repaired patches; evidence: marked elevation plan.                                   |

## Adhesion Testing – Cross-Cut

|    |                                                                                                                                                                                                        |
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| 9  | Using a cross-cut knife and straightedge, score a 6×6 grid with 2 mm spacing through the coating to substrate; brush gently to remove debris; evidence: macro photos of grid.                          |
| 10 | Apply medium-adhesion tape over the grid, press firmly, dwell 60 s, and remove at 180° in one smooth motion; acceptance: classification 0–1 or detachment $\leq 5\%$ ; evidence: tape and grid photos. |
| 11 | Record coating layer(s) affected and failure mode (adhesive vs cohesive); acceptance: no adhesive failure at substrate interface; evidence: annotated macro photos and notes.                          |
| 12 | Seal cross-cut incisions with matching touch-up coating to maintain protection; evidence: after-repair photos and touch-up batch number.                                                               |

| Adhesion Testing – Pull-Off |                                                                                                                                                                                                        |
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| 13                          | Prepare dollies by abrading bonding faces and cleaning with solvent; acceptance: bright, clean metal; evidence: prepped dolly photos.                                                                  |
| 14                          | Bond dollies using two-component epoxy; record mix ratio, batch/lot numbers, ambient conditions; allow full cure per TDS; evidence: time-stamped photos and TDS excerpt.                               |
| 15                          | Score around each dolly with a core drill to isolate to substrate without undercutting; acceptance: ring fully through coating, substrate intact; evidence: close-up photos.                           |
| 16                          | Load with a pull-off adhesion tester at 0.1–1.0 MPa/s; record peak stress (MPa) and failure mode; acceptance: $\geq$ manufacturer/project minimum; evidence: instrument screen photos.                 |
| 17                          | Interpret results: adhesive failure at interface is nonconforming; cohesive failure in coating/substrate may be acceptable if stress $\geq$ specified; document decisions; evidence: annotated photos. |

| Continuity and Thickness Verification |                                                                                                                                                                                                                     |
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| 18                                    | Measure dry film thickness at 5 random points per 10 m <sup>2</sup> using ultrasonic (nonmetal) or magnetic (metal) gauge; acceptance: average within specified range, no single $< -20\%$ of minimum; attach logs. |
| 19                                    | Inspect under raking light (1,000–2,000 lm) for pinholes, sags, roller marks, cracks, and misses; acceptance: zero pinholes/holidays and uniform appearance; evidence: annotated raking-light photos.               |
| 20                                    | Conduct optional low-voltage wet-sponge holiday test on conductive metal substrates; set voltage per DFT; acceptance: zero indications; evidence: detector readings and location tags.                              |
| 21                                    | Perform a controlled water spray on 1–2 m <sup>2</sup> for 10 min using a gentle fan nozzle; observe for darkening, blistering, or seepage; acceptance: no wet-through or defects; evidence: before/after photos.   |

| Defects, Remediation, and Records |                                                                                                                                                                                                          |
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| 22                                | Log all nonconformities with unique IDs, type, cause, and exact location; issue punch list/NCR where repeated; evidence: defect register and marked elevations.                                          |
| 23                                | Implement repairs per manufacturer guidance; record materials, batch numbers, ambient conditions, and cure times; evidence: repair photos and material labels.                                           |
| 24                                | Retest remediated areas with the same method(s) until compliant; acceptance: all readings and classifications meet or exceed project requirements; evidence: retest logs and approvals.                  |
| 25                                | Compile final report: maps, photos, readings (MPa, $\mu\text{m}$ ), calibration certs, batch numbers, and signatures; export PDF/Excel with QR for authentication; evidence: archived files and QR link. |
| 26                                | Close out with stakeholder review and acceptance per approved project specifications and authority requirements; evidence: sign-off sheet and distribution record.                                       |

**Comments:**

Filled by:

Signature:

| Introduction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | How to use this checklist                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| <p>Test façade protective coatings or finishes for adhesion and continuity to ensure durable, weather-resistant building envelopes. This checklist supports façade coating adhesion testing and finish continuity verification across typical substrates, guiding inspectors through cross-cut and pull-off adhesion methods, dry film thickness measurement, and visual continuity checks under raking light. It defines the sampling frequency, environmental controls, acceptable outcomes, and documentary evidence needed for a defensible quality record. By following these steps, teams reduce risks such as premature peeling, water ingress, uneven coverage, and warranty disputes, while validating application workmanship per approved project specifications and authority requirements. The scope covers finished, accessible exterior areas only; it excludes laboratory testing and in-process application controls except where noted for correlation. Use this interactive tool to capture readings in MPa and µm, attach calibration certificates, and geo-tag photos. Start interactive mode to tick items, add comments for nonconformities, and export the record as PDF/Excel secured by a QR code.</p> | <p>1. Preparation: Assemble cross-cut kit, pull-off tester with dollies and epoxy, DFT gauge, hygrometer, IR thermometer, moisture meter, raking light, access equipment, PPE, drawings, and manufacturer TDS. 2. Open the checklist, assign roles, and load project data (areas, elevations, substrates). Upload calibration certificates and relevant product documentation for quick reference. 3. Start interactive mode and tick preparation items as you validate cure status, safety access, and environmental conditions. Add comments with photos where clarifications are needed. 4. During testing, record readings (MPa, µm) directly in the steps, attach instrument screen photos, and tag precise locations on elevation plans for traceability. 5. Use comments to flag nonconformities, assign remedial actions, and set retest reminders. Link batch numbers, lot labels, and TDS excerpts to the affected entries. 6. Export the completed checklist to PDF/Excel for stakeholder review. The export includes embedded photos, maps, and QR code authentication for document integrity. 7. Sign-Off: Capture digital signatures from contractor, consultant, and client. Archive the signed record in the project QC system for future audits and warranty support.</p> |