



Concrete QA for Piles: Slump/Flow, Temperature, Cylinders/Cubes

Concrete QA for Piles via interactive checklist: sample slump/flow, measure temperature, prepare specimens, and record IDs. Commentable and export as PDF/Excel.

Project:

Date:

Filled by:

Pre-Pour Preparation

1	Confirm the scope covers on-site QA sampling/testing for piles only (exclude mix approvals); review approved project specifications and authority requirements for target slump/flow and temperature limits. Acceptance: target ranges identified and logged. Evidence: note in checklist with spec reference and supervisor initials.
2	Verify calibration/condition of slump cone, base plate, flow spread plate/table, tamping rod, thermometer (0–50 °C), and timer. Acceptance: instruments within calibration validity; no dents or contamination. Evidence: photos of calibration stickers and tool inspection checklist.
3	Prepare clean, damp sampling bucket/scoop and wiping cloths; set a flat, level, non-absorbent surface for testing near the pile. Acceptance: equipment visibly clean and surface level checked with a bubble level. Evidence: photos of setup and level reading.
4	Pre-label specimen molds and tags with pile ID, grid/chainage, truck/batch ID, date/time, and tester initials using a waterproof marker. Acceptance: labels legible and consistent across molds and paperwork. Evidence: photo of labeled molds and tag close-ups.
5	Brief the crew on sampling location and access considering tremie or pump setup and spoil management. Acceptance: safe approach route and stable test area established. Evidence: toolbox-talk record and site photo showing designated test zone.

Sampling and Slump/Flow Testing

6	Collect a composite concrete sample from the point of discharge once flow is stable; avoid the first and last discharge portions. Acceptance: sample obtained promptly within project-specified time limits. Evidence: timestamped photos showing sampling point and bucket.
7	Perform the slump test using a clean cone and base plate; fill in equal layers, consolidate appropriately, lift vertically, and measure to the nearest 5 mm. Acceptance: slump within specified range per approved project specifications. Evidence: photo of slumped cone with steel rule reading.
8	If self-compacting concrete is supplied, conduct slump-flow: lift the cone and measure orthogonal spreads; observe edge stability and viscosity. Acceptance: average spread within specified range; no excessive segregation. Evidence: photos of spread with two diameter readings in mm and visual stability notes.
9	Measure concrete temperature in the fresh sample with a calibrated probe immersed adequately. Acceptance: temperature within project-specified limits; reading recorded to 0.5 °C. Evidence: close-up photo of thermometer display and logged value.
10	Visually assess the sample for signs of segregation, excessive bleeding, or abnormal air content indications (e.g., very harsh or sticky mix). Acceptance: fresh concrete exhibits uniform paste and aggregate distribution. Evidence: annotated photo; if issues found, raise a nonconformance record.
11	If slump/flow or temperature fall outside specified limits, notify the site superintendent immediately and pause placement in the affected pile section. Acceptance: corrective action agreed and recorded before resuming. Evidence: communication log and updated checklist notes.

Strength Specimens (Cylinders/Cubes)

12	Confirm required specimen type and size (e.g., cylinders 150x300 mm or cubes 150 mm/100 mm) and test ages per project specs. Acceptance: specimen schedule meets specified frequency. Evidence: completed sampling plan with number of sets and ages.
13	Prepare molds: clean, lightly oiled, and assembled square/plumb on a rigid surface. Acceptance: no leaks or warping; identification matches tags. Evidence: photo of prepared molds and oil application.
14	Fill molds using the correct method: rodding or vibration for conventional concrete; minimal disturbance for SCC. Strike off level. Acceptance: dense, void-free specimens with smooth, level tops. Evidence: photos during filling, compaction method noted, finished surface close-up.
15	Label each specimen immediately with permanent, waterproof markings and attach corresponding tags (pile ID, truck/batch ID, date/time, set number). Acceptance: full traceability on every piece. Evidence: label close-ups and checklist cross-reference.
16	Initial curing: cover specimens to prevent moisture loss and store in a protected curing box. Target 20 ± 2 °C if specified. Acceptance: temperature logged and stable; no drafts/sun exposure. Evidence: curing box photo with thermometer reading.
17	Arrange secure transport or handover to the laboratory with a completed chain-of-custody form. Acceptance: delivery within the time window defined by project specs. Evidence: signed lab receipt and transport log with times.

Traceability and Records

18	Record pile details: pile ID, location (grid/chainage), designed depth, and placement method (tremie/pump). Acceptance: all fields complete and consistent. Evidence: photo of pile marker and entry screenshot.
19	Capture truck ID, batch ticket number, arrival/start/end times, and admixture additions (if any) from the ticket and foreman. Acceptance: times aligned with test timestamps. Evidence: photo/scan of batch ticket and logged times.
20	Enter test results (slump/flow, temperature) with units, tolerances, and attachments. Acceptance: results clearly within/without specified limits and justified actions noted. Evidence: digital entries with photos linked to the pile record.
21	Generate a QR code for the pile's QA record and affix a printed sticker to the curing box or specimen crate. Acceptance: code scans correctly to the record. Evidence: scan test screenshot and sticker photo.
22	Obtain digital signatures from the inspector and contractor representative following each truck's tests. Acceptance: signatures dated and tied to the record. Evidence: signed checklist snapshot.

Post-Pour Verification

23	Verify test frequency coverage for the pour (e.g., first truck and as specified thereafter). Acceptance: checklist shows complete coverage for all trucks/segments. Evidence: coverage summary screenshot.
24	Issue the laboratory test request with specimen IDs, ages, and curing details; include the QR link. Acceptance: lab acknowledges receipt and schedule. Evidence: emailed request and lab confirmation.
25	Export the completed checklist and photos to PDF/Excel and file them in the project share. Acceptance: documents saved under correct folder structure and naming. Evidence: exported files and share link recorded.

Comments:

Filled by:

Signature:

Introduction	How to use this checklist
<p>Concrete QA for Piles ensures your pile concrete testing is performed consistently and traceably during deep foundation pours. This checklist focuses on fresh concrete sampling for bored piles, CFA piles, and drilled shafts, covering slump or flow measurements, temperature checks, and casting cylinders or cubes. It prioritizes accurate pile concrete sampling at the right time and location, proper compaction or non-compaction methods, and end-to-end identification of pile ID, truck/batch ID, and specimen ID. By keeping scope tight—on-site sampling and testing only—it avoids scope creep into mix approvals while reducing risks like segregation, blockages, excessive washout, or understrength sections. The result is reliable evidence that each pile pour met the approved project specifications and authority requirements, backed by photographs, readings, and signatures. Use this as a live tool: tick items in sequence, capture comments and photos, and export your complete record as PDF/Excel from the embedded QR code for authenticated sharing.</p>	<ol style="list-style-type: none"> Preparation: assemble slump cone, base plate, flow plate, tamping rod, thermometer (0–50 °C), timer, sampling bucket, molds, tags, waterproof marker, curing box, chain-of-custody forms, and PPE (gloves, goggles, boots). Verify calibration dates and site access near the pile. Open the checklist on your device and select the project, pile ID, and pour segment. Review the specification targets for slump/flow and temperature so the acceptance ranges are clear before trucks arrive. Using the interactive checklist: start the session, tick items as you go, and attach photos of the sampling point, test readings, and labeled specimens. Add comments for observations, nonconformances, and actions taken. Enter readings with units (mm, °C) and link them to truck/batch IDs. Generate a QR code for the record so physical specimens and curing boxes can be matched instantly on site. When testing is complete, review the summary to confirm coverage and completeness. Export the record to PDF/Excel for distribution to the site team, consultant, and laboratory. Sign-Off: obtain digital signatures from the inspector and contractor representative. Archive the signed record and photos in the project folder; verify that the QR code scans back to the finalized checklist.