



How to Perform a Concrete Slump Test: ASTM / EN Checklist

How to perform a concrete slump test using a slump cone (Abrams cone). Follow ASTM C143 or BS EN 12350-2 steps and use the interactive site checklist.

Project:

Date:

Filled by:

Apparatus and Base Preparation

1	Confirm that a representative fresh-concrete sample has already been obtained in accordance with the applicable sampling procedure. Record the sample ID and sampling time, then begin the slump test within the required timeframe. Keep the Fresh Concrete Sampling Checklist as a related/link resource.
2	Inspect the slump cone (Abrams cone), rigid nonabsorbent baseplate, tamping rod and measuring rule required by the selected standard. Confirm the equipment is clean, undamaged and suitable for use. This catches the useful search terminology naturally.
3	Dampen cone and base uniformly without free water; remove laitance/debris. Acceptance: visibly moist film, no standing water. Evidence: close-up photo of wetted surfaces.
4	Place base on firm, level ground protected from vibration/wind; verify with a spirit level. Acceptance: bubble centered; base immobile. Evidence: level reading photo.

ASTM C143/C143M Procedure

5	Place cone centrally on base; restrain by standing on footpieces to prevent movement. Acceptance: cone does not slide or rock. Evidence: setup photo showing foot restraint.
6	Fill cone in three approximately equal layers distributed around the perimeter and center. Acceptance: each layer near one-third of cone height. Evidence: photo noting layer heights.
7	Rod first layer exactly 25 strokes with the tamping rod, penetrating to the base and spacing strokes uniformly. Acceptance: all 25 strokes completed. Evidence: short video or stroke tally comment.
8	Rod second and third layers 25 strokes each; penetrate approximately 25 mm into the underlying layer across the full area; slightly overfill the top. Acceptance: uniform penetration; top slightly heaped. Evidence: photo of heaped top.
9	Strike off excess with a sawing-and-rolling motion to a plane surface flush with the cone; clean spillage from the base. Acceptance: top flush; perimeter clean. Evidence: close-up photo.
10	Lift the cone vertically in 5 ± 2 s without twist or lateral motion. Acceptance: smooth, continuous, vertical lift. Evidence: time-stamped video or stopwatch display.

BS EN 12350-2 Sequence

11	Seat cone firmly on the base and hold down steadily by footpieces/handles to prevent movement. Acceptance: cone stable and sealed to base. Evidence: setup photo.
12	Fill the cone in three approximately equal layers in accordance with BS EN 12350-2. Acceptance: each layer near half the cone volume. Evidence: layer identification photo.
13	Rod first layer 25 strokes to full depth; distribute strokes across the entire cross-section. Acceptance: all 25 strokes completed. Evidence: stroke tally comment.
14	throughout; slightly overfill the top... Compact the second and third layers with 25 strokes each, allowing the rod to penetrate appropriately into the preceding layer. Slightly overfill the mould before striking off.
15	Strike off to a plane surface flush with the cone and clear any leakage around the base. Acceptance: top flush; base perimeter clean. Evidence: close-up photo.
16	Lift the cone vertically in a smooth motion over 2–5 s without twisting. Acceptance: continuous, vertical withdrawal. Evidence: time-stamped video or stopwatch display.

Measurement and Classification

17	Immediately invert the cone beside the specimen; measure slump as the vertical difference between the original cone height and the highest point at the center of the slumped concrete. Acceptance: reading to the nearest increment required per selected standard. Evidence: measurement photo with rule.
18	Observe the profile and classify the result: true slump (uniform subsidence), shear slump (one side slips), or collapse slump (loss of shape). Acceptance: shape recorded consistently with observation. Evidence: side-profile photo.
19	If shear or collapse slump occurs, repeat the test on a new portion of the same sample per the selected standard and project requirements. Acceptance: repeat completed; both results cross-referenced. Evidence: second test photos and note.

Recording and Traceability

20	Record the chosen standard (ASTM C143 or BS EN 12350-2), project, location, sample ID, mix designation, ambient conditions, and test times. Acceptance: all mandatory fields complete. Evidence: delivery ticket photo and digital form screenshot.
21	Enter slump value and shape in the Concrete Slump Test Report Template; include tester name and witness signatures as required. Acceptance: report finalized without blanks. Evidence: signed digital report.
22	Attach photos/videos to this checklist; export as PDF/Excel with embedded QR code; distribute to stakeholders. Acceptance: QR opens the exact record. Evidence: QR verification screenshot.

Comments:

Filled by:

Signature:

Introduction	How to use this checklist
How to perform concrete slump test is the focus of this practical, field-ready checklist for site engineers and technicians. It walks you through slump testing, slump measurement, and shape classification using the test standard required by the project specification, ITP or approved procedure, while keeping ASTM C143/C143M and BS EN 12350-2 requirements clearly identified. The procedure begins after a representative sample has been taken; for that prerequisite, use the linked Fresh Concrete Sampling Checklist. Here you will set the apparatus, place the cone correctly, fill in the required layers, rod each layer, strike off, lift the cone in the specified time, measure the slump, identify true/shear/collapse shape, and record results. Staying within scope, we do not decide acceptance, adjust trucks, or make cubes/cylinders. Following this sequence avoids unstable cones, uneven compaction, delayed measurements, and unverifiable records—leading to reproducible, defensible results. Use interactive mode to tick items, add comments with photos or short videos, and export as PDF/Excel secured by a QR code.	1. Preparation: Gather the cone, baseplate, 16 mm tamping rod (~600 mm), steel rule, spirit level, stopwatch, clean rags, and PPE (gloves, safety glasses, boots). Select ASTM C143 or BS EN 12350-2 before starting. 2. Using the Interactive Checklist: Start interactive mode on your device, tick each step as completed, and attach photos or short videos at key moments (rodding, lift timing, measurement). Add comments for counts, times, and observations. 3. Export and Share: On completion, generate the Concrete Slump Test Report, then export the record as PDF/Excel with an embedded QR code for authentication. Share with the site team, QA, and the engineer. 4. Sign-Off and Archive: Capture digital signatures from the tester and witness, confirm the QR code opens the exact record, and archive to your project folder structure per approved project specifications and authority requirements.