Concrete Slump Values & Classes

Quick reference - targets, ranges, classes and project acceptance

QA/QC QUICK REFERENCE

Not a project-specific acceptance sheet

1 EN 206 SLUMP CLASSES (ORDINARY SLUMP)

Class	Slump range	Interpretation
S1	10-40 mm	Low slump class
S2	50-90 mm	Moderate-low class
S3	100-150 mm	Moderate class
S4	160-210 mm	High class
S5	>= 220 mm	Very high slump class

Important: S1-S5 are consistence classes, not universal slump recommendations for slabs, beams, columns or walls.

2 HOW THE REQUIREMENT MAY BE WRITTEN

Target slump	Nominal specified value; apply only the tolerance rules adopted by the project.
Permitted range	Explicit lower and upper limits stated by the project.
Minimum / maximum	One-sided requirement where only a lower or upper limit is controlled.
Consistence class	Classification such as S1-S5 under the EN system.

3 HOW TO INTERPRET A MEASURED SLUMP

1 Find the requirement
Project specification / approved mix / order

→

2 Validate the test
Representative sample and correct slump-test method

→

3 Compare like-for-like
Target, range, maximum, minimum or class

→

4 Apply disposition
Record if compliant; if outside, follow authorized procedure

4 SPECIFICATION SYSTEM VS TEST METHOD

ASTM route

ASTM C94/C94M - ready-mixed concrete specification / purchaser requirements.
ASTM C143/C143M - slump test method.

EN / BS route

BS EN 206-1 - concrete specification / consistence system.
BS EN 12350-2 - slump test method.

5 ACCEPTANCE CHECK BEFORE ANY DECISION

- ☐ What exact requirement applies?
- ☐ Which document establishes it?
- ☐ Was the sample and test valid?
- ☐ Is an applicable specification tolerance defined?
- ☐ Does the project require a hold or retest?
- ☐ Who is authorized to approve adjustment, concession or rejection?

Outside the project requirement does not mean automatic rejection. Confirm test validity, hold the load where required, and follow the approved retest / adjustment / disposition procedure. Do not invent a site tolerance.

SCC reminder: self-compacting / self-consolidating concrete should use the applicable slump-flow requirement rather than ordinary slump.

Verify: project-adopted edition, national provisions, mix approval and measurement point before applying any value or class.