
















1. EQUIPMENT

- 1.1. Slump cone;
 - 1.2. Tamping rod;
 - 1.3. Base plate;
 - 1.4. Test surface;
 - 1.5. Float;
 - 1.6. Ruler, checked as given in **QTF12**;
 - 1.7. Scoop;
 - 1.8. Funnel;
 - 1.9. Spade and
 - 1.10. Wheel barrow.
- } Checked in accordance with **QTF09**.

2. METHOD

2.1. Preparation -

- 2.1.1. Ensure that the person taking the slump test wear all the relevant personal protective equipment;

MARK "X" FOR APPLICABLE PERSONAL PROTECTIVE EQUIPMENT REQUIRED		
	Hard Hat	X
	Eye Protection	X
	Face Protection: Welding Helmet	
	Hand Protection	X
	Protective Clothing: Overall	X
	Foot Wear: Safety Boots	X
	Gum boots	
	Dust mask	X
	Respirator	
	Reflective Clothing	X
	Safety Harness	
	Apron	X
	Hearing Protection	X
	Use waste bins for waste separation	X
	Lock-out	

- 2.1.2. Conduct continuous risk assessment, the daily safe task instruction (DSTI);
- 2.1.3. Check the wheel borrow condition not leaking & causing environmental issues. Ensure that the wheel barrow wheels, handles & the spade are safe & operational not causing various types of injuries, damage incidents & ergonomical issues;

- 2.1.4. Sampling concrete at the plant. Remember the mixer truck & front end loader has the right of way – man interface with these can cause serious incidents;
- 2.1.5. Make sure that the chute is operational & in the correct position to discharge without spillage. Wear your gloves now. When operating the chute keep both hands clear from the “pinch points” by using the “T-handles” – this will prevent serious finger & hand injuries. Take a sample (*generally half a wheelbarrow full*) of readymixed concrete from the mixer truck chute as required by the sampling protocol or as directed by the Batcher (see [QPP03](#)). Use the correct handling & lifting techniques to prevent various injury incidents;
- 2.1.6. Ensure that you have a clear way to the designated slump test area to avoid spillage, slipping, tripping & falling incidents;
- 2.1.7. Remix the fresh concrete using a trowel immediately before carrying out the test.

Note: On-site sampling of readymix concrete: avoid taking a “spot” sample as given above. See SANS 5861-2:2006.

3. PROCEDURE

- 3.1. **Slump Test** - Carry out the test on the samples of freshly mixed concrete as follows:

- 3.1.1. If all the equipment listed in item one (**1**) **EQUIPMENT** then start with the slump test process;
- 3.1.2. Ensure the test area is level, not contaminated & that nothing on the surface will interfere with the slump test;
- 3.1.3. Wipe the base plate & inside of cone with a damp cloth;
- 3.1.4. Place cone in the middle of the base plate on a firm level surface as in item 3.1.2;
- 3.1.5. Wear gloves now (*PVC*). Place feet firmly on the foot-pieces –
- 3.1.6. Fill the cone in three (3) equal layers, using a funnel to avoid spilling;
- 3.1.7. Give each layer twenty five (25) blows with the rounded end of the tamping rod, making sure the rod goes into the layer below when tamping the second & third layers;
- 3.1.8. Level off the top using the tamping rod;
- 3.1.9. Clean the area around the base of the cone;
- 3.1.10. Press down on the top handles of the cone, then remove feet from foot-pieces. Lift the cone slowly straight up, taking about five (5) seconds;
- 3.1.11. Turn the cone upside down & place on the base-plate close to the concrete. Put the slump rod over the cone & measure from the bottom of the rod to the highest point of the concrete, to the nearest 5mm;
- 3.1.12. If the concrete shows a shear slump, repeat the test. If the second slump test shears, record this in the relevant “Slump, mm” block;

3.1.13. Report all shear slumps to the Manager for corrective action, ie. checking raw materials and/ or mix design and

3.1.14. After testing, tip the slumped concrete back into the wheelbarrow & either:

3.1.14.1. Discard in an environmentally friendly manner Dump concrete authorization [QPF35](#), or

3.1.14.2. Sample required for compressive strength testing as part of sampling protocol: Mix thoroughly before filling cube moulds (see [QTW02](#))

3.2. **Result** - Results are recorded as follows:

3.2.1. Slump required by Batchers: called up to the Batchers by the Lab Assistant. The Batchers then records the result as "AS" (*actual slump*) on as given in [QPP03](#).

3.2.2. Sample required for compressive strength testing: The Laboratory Assistant records the slump on the Cube Worksheet ([QTF22](#)) against the sample number (see [QTP04](#)).

4. RECORDS

Note: Records generated as a result of this procedure are as follows:

ENTRY NUMBER	RECORD	LOCATION/ CUSTODIAN	MINIMUM RETENTION TIME	DISPOSAL METHOD
4.1.	QTF09 Checking slump cone, tamping rod, baseplate & testing surface.	See QTP03 - Laboratory equipment calibration checking and maintenance procedure.		
4.2.	QTF12 Checking steel ruler / feeler gauge / square.			
4.3.	QTF22 Cube Worksheet.	See QTW03		
4.4.	Dump concrete authorization.	See QPF35		
4.5.	Hand Tool Checklist.	Various		

5. REFERENCES AND APPENDIXES

ENTRY NUMBER	ENTRY DESCRIPTION	REFERENCE NUMBER
5.1.	Production	QPP03
5.2.	Calibration, checking and maintenance of laboratory equipment	QTP03
5.3.	Sample identification, storage and handling	QTP03
5.4.	Making and curing test specimens	QTW02
5.5.	Concrete tests – sampling of freshly-mixed concrete	See SANS 5861-2:2006
5.6.	Risk Assessment Documentation (<i>DSTI</i>)	Various



5.7.	Personal Protective Equipment Issue Record	Various
5.8.	Personal Protective Equipment Checklist	Various
5.9.	Training Certificates	Various

TECHNICAL MANAGER NAME		DESIGNATION/ AREA	
TECHNICAL MANAGER SURNAME		Date	
TECHNICAL MANAGER SIGNATURE		IDENTITY NUMBER	

ACKNOWLEDGEMENT OF UNDERSTANDING OF HOW TO TAKE A SLUMP

TECNICIAN NAME		DESIGNATION/ AREA	
TECHNICIAN SURNAME		Date	
TECHNICIAN SIGNATURE		IDENTITY NUMBER	