

# ISO 1920-2:2016-11 (E)

## Testing of concrete - Part 2: Properties of fresh concrete

---

<b>Contents</b>		<b>Page</b>
Foreword .....		v
Introduction .....		vi
1	Scope .....	1
2	Normative references .....	1
3	Terms and definitions .....	1
4	Determination of consistence .....	2
4.1	General .....	2
4.2	Sampling .....	2
4.3	Slump test .....	2
4.3.1	Principle .....	2
4.3.2	Apparatus .....	2
4.3.3	Procedure .....	3
4.3.4	Test result .....	4
4.3.5	Test report .....	5
4.4	Vebe test .....	5
4.4.1	Principle .....	5
4.4.2	Apparatus .....	5
4.4.3	Procedure .....	8
4.4.4	Test result .....	8
4.4.5	Test report .....	9
4.5	Degree of compactability test .....	9
4.5.1	Principle .....	9
4.5.2	Apparatus .....	9
4.5.3	Procedure .....	10
4.5.4	Test results .....	11
4.5.5	Test report .....	11
4.6	Flow-table test .....	12
4.6.1	Principle .....	12
4.6.2	Apparatus .....	12
4.6.3	Procedure .....	14
4.6.4	Test results .....	15
4.6.5	Test report .....	15
4.7	Slump-flow test .....	16
4.7.1	General .....	16
4.7.2	Principle .....	16
4.7.3	Apparatus .....	16
4.7.4	Procedure .....	17
4.7.5	Test report .....	18
5	Determination of fresh density .....	19
5.1	Principle .....	19
5.2	Apparatus .....	19
5.3	Sampling .....	20
5.4	Procedure .....	20
5.4.1	Mass of the container .....	20
5.4.2	Filling the container .....	20
5.4.3	Compacting the concrete .....	20

5.4.4	Surface levelling .....	21
5.4.5	Determining the mass and volume of the container .....	21
5.5	Test result .....	21
5.6	Test report .....	21
6	Determination of air content .....	22
6.1	General .....	22
6.2	Sampling .....	22
6.3	Filling the container and compacting the concrete .....	22
6.3.1	Means of compaction .....	22
6.3.2	Filling the container .....	22
6.3.3	Compacting the concrete .....	23
6.4	Pressure-gauge method .....	23
6.4.1	Principle .....	23
6.4.2	Apparatus .....	23
6.4.3	Filling the container and compacting the concrete .....	25
6.4.4	Procedure .....	25
6.5	Water-column method .....	25
6.5.1	Principle .....	25
6.5.2	Apparatus .....	25
6.5.3	Filling the container and compacting the concrete .....	27
6.5.4	Procedure .....	27
6.6	Calculations and expression of results .....	28
6.6.1	Air content of the sample tested .....	28
6.6.2	Air content of the mortar fraction .....	28
6.7	Test report .....	28
7	Test report .....	29
Annex A (informative) Precision -- Data for the density measurements .....		30
Annex B (normative) Calibration of the container for the density test .....		31
Annex C (informative) Additional calculations for the density test .....		32
Annex D (informative) Precision -- Water-column method .....		33
Annex E (normative) Calibration of apparatus -- Pressure-gauge method .....		34
Annex F (normative) Calibration of apparatus -- Water-column method .....		36
Annex G (normative) Aggregate corrector factor -- Pressure-gauge method .....		39
Annex H (normative) Aggregate correction factor -- Water-column method .....		41
Annex I (informative) Examples of test reports and worksheets .....		43
Bibliography .....		57