

DIN EN 206:2014-07 (E)

Concrete - Specification, performance, production and conformity

Contents		Page
Foreword		4
Introduction		6
1	Scope	7
2	Normative references	8
3	Terms, definitions, symbols and abbreviations	10
3.1	Terms and definitions	10
3.2	Symbols and abbreviations	18
4	Classification	20
4.1	Exposure classes related to environmental actions	20
4.2	Classes for properties of fresh concrete	22
4.3	Classes for properties of hardened concrete	25
5	Requirements for concrete and methods of verification	26
5.1	Basic requirements for constituents	26
5.2	Basic requirements for composition of concrete	28
5.3	Requirements related to exposure classes	34
5.4	Requirements for fresh concrete	35
5.5	Requirements for hardened concrete	36
6	Specification of concrete	38
6.1	General	38
6.2	Specification for designed concrete	39
6.3	Specification for prescribed concrete	40
6.4	Specification of standardized prescribed concrete	41
7	Delivery of fresh concrete	41
7.1	Information from the user of the concrete to the producer	41
7.2	Information from the producer of the concrete to the user	41
7.3	Delivery ticket for ready-mixed concrete	42
7.4	Delivery information for site-mixed concrete	44
7.5	Mix adjustments after the main mixing process and prior to discharge	44
8	Conformity control and conformity criteria	44
8.1	General	44
8.2	Conformity control for designed concrete	45
8.3	Conformity control of prescribed concrete including standardized prescribed concrete ...	54
8.4	Actions in the case of non-conformity of the product	54
9	Production control	54
9.1	General	54
9.2	Production control systems	55
9.3	Recorded data and other documents	55
9.4	Testing	56
9.5	Concrete composition and initial testing	57
9.6	Personnel, equipment and installation	57
9.7	Batching of constituents	58
9.8	Mixing of concrete	59

9.9	Production control procedures	59
10	Evaluation of conformity	63
10.1	General	63
10.2	Assessment, surveillance and certification of production control	63
11	Designation for designed concrete	64
Annex A (normative) Initial test		65
A.1	General	65
A.2	Party responsible for initial tests	65
A.3	Frequency of initial tests	65
A.4	Test conditions	65
A.5	Criteria for adoption of initial tests	66
Annex B (normative) Identity testing		67
B.1	General	67
B.2	Sampling and testing plan	67
B.3	Identity criteria for compressive strength	67
B.4	Identity criteria for consistence and air content	68
B.5	Identity criteria for fibre content and homogeneity of fresh concrete, viscosity, passing ability and segregation resistance	68
Annex C (normative) Provisions for assessment, surveillance and certification of production control		69
C.1	General	69
C.2	Tasks for the inspection body	69
C.3	Tasks for the certification body	71
Annex D (normative) Additional requirements for specification and conformity of concrete for special geotechnical works		72
D.1	General	72
D.2	Constituents	72
D.3	Concrete	73
Annex E (informative) Recommendation for the use of aggregates		76
E.1	General	76
E.2	Natural normal-weight and heavy-weight aggregates and air-cooled blast furnace slag ...	76
E.3	Recommendation for the use of coarse recycled aggregates	77
E.4	Recommendation for the use of lightweight aggregates	78
Annex F (informative) Recommendation for limiting values of concrete composition		79
Annex G (informative) Guidelines for self-compacting concrete requirements in the fresh state		81
G.1	General	81
G.2	Recommendations on classification of self-compacting concrete	82
Annex H (informative) Rules of application for 8.2.1.3, Method C		83
H.1	Introduction	83
H.2	Control based on the cusum system	83
H.3	Control based on Shewhart charts with modified limits by variables	84
Annex J (informative) Deviation to accommodate a notified Spanish Regulation		85
Annex K (informative) Concrete families		86

K.1	General	86
K.2	Selection of the concrete family	86
K.3	Flow chart for the assessment of membership and conformity of a concrete family	87
Annex L (informative) Further information regarding specific paragraphs		88
Annex M (informative) Guidance on provisions valid in the place of use		90
Bibliography		92