

DIN EN 13369:2025-06 (E)

Common rules for precast concrete products

Contents

Page

European foreword	6
Introduction	8
1 Scope	9
2 Normative references	9
3 Terms and definitions	10
3.1 General	10
3.2 Dimensions	11
3.3 Tolerances	12
3.4 Durability	12
3.5 Mechanical properties	12
4 Specifications	13
4.1 Material and components specifications	13
4.1.1 General	13
4.1.2 Constituent materials of concrete	13
4.1.3 Reinforcing steel	14
4.1.4 Prestressing steel	14
4.1.5 Inserts and connectors	14
4.2 Production specifications	14
4.2.1 Concrete production	14
4.2.2 Hardened concrete	17
4.2.3 Structural reinforcement	18
4.3 Finished product specifications	20
4.3.1 Geometrical properties	20
4.3.2 Surface characteristics	22
4.3.3 Mechanical resistance	22
4.3.4 Resistance and reaction to fire	24
4.3.5 Acoustic properties	24
4.3.6 Thermal properties	25
4.3.7 Durability	25
4.3.8 Other specifications	26
5 Test methods	27
5.1 Tests on concrete	27
5.1.1 Compressive strength	27
5.1.2 Water absorption	27
5.1.3 Dry density of concrete	27
5.2 Measuring of dimensions and surface characteristics	28
5.3 Weight of the products	28
6 Assessment and verification of constancy of performance	28
6.1 General	28
6.1.1 General	28
6.1.2 Demonstration of compliance	28
6.1.3 Assessment of constancy of performance	29
6.1.4 Product families	29
6.2 Assessment of the performance	29

6.2.1	General	29
6.2.2	Testing and compliance criteria.....	30
6.3	Factory production control.....	30
6.3.1	General	30
6.3.2	Organization.....	31
6.3.3	Control system.....	31
6.3.4	Document control.....	31
6.3.5	Process control.....	31
6.3.6	Inspection and testing.....	31
6.3.7	Non-compliant products	32
6.3.8	Compliance criteria.....	33
6.3.9	Indirect or alternative test method	33
6.3.10	Initial inspection of factory and of FPC.....	33
6.3.11	Continuous surveillance of FPC	34
6.3.12	Procedure for modifications.....	34
7	Marking	34
8	Technical documentation	35
Annex A	(informative) Concrete cover as regard to corrosion	36
A.1	Minimum concrete cover for base conditions.....	36
A.2	Alternative conditions	37
Annex B	(informative) Concrete strength quality control.....	38
B.1	Statistical representative values.....	38
B.2	Compliance criteria for potential strength	38
B.3	Direct structural strength.....	38
B.4	Indirect structural strength.....	38
B.5	Direct assessment of possibly non-conforming units	39
Annex C	(informative) Reliability considerations	41
C.1	General	41
C.2	Reduction based on quality control and reduced tolerances.....	41
C.3	Reduction based on using reduced or measured geometrical parameters in design.....	42
C.4	Reduction based on assessment of concrete strength in finished structure	42
C.5	Reduction of γ_G based on control of self-weight	43
Annex D	(normative) Inspection schemes.....	44
D.1	General	44
D.2	Equipment inspection.....	44
D.3	Inspection of incoming materials	46
D.4	Process inspection.....	48
D.5	Finished product inspection.....	52
D.6	Switching rules	52
Annex E	(informative) Assessment of compliance	54
E.1	General	54

E.1.1	General remark	54
E.1.2	Compliance of factory quality system.....	54
E.1.3	Compliance of the product.....	54
E.2	Initial inspection	54
E.3	Continuous surveillance.....	54
E.4	Audit testing.....	55
Annex F (normative) Test of water absorption.....		56
F.1	Method	56
F.2	Sampling.....	56
F.3	Materials	58
F.4	Apparatus	59
F.5	Preparation	59
F.6	Procedure	59
F.7	Results.....	59
Annex G (informative) Measurement of dimensions		60
G.1	General.....	60
G.2	Length, height, width and thickness	60
G.3	Warp and straightness.....	60
G.4	Out of squareness	61
G.5	Surface characteristics.....	61
Annex H (informative) Prestressing losses		66
H.1	General.....	66
H.2	Calculation of losses (general method).....	66
H.2.1	Immediate losses	66
H.2.2	Time dependent losses after transfer of the prestressing force.....	66
H.3	Simplified method	67
Annex I (informative) Technical documentation		68
I.1	General.....	68
I.2	Product documentation.....	68
I.3	Production documentation	68
I.4	Erection documentation.....	69
Annex J (informative) Properties of indented bars and wire		70
Annex K (informative) Resistance to fire: recommendations for the use of EN 1992-1-2		71
K.1	Use of tabulated data	71
K.2	Use of calculation methods.....	71
Annex L (informative) Survey of type testing		72

Annex M (informative) Performance-based approach for precast concrete products	74
M.1 Introduction	74
M.2 Equivalent Durability Procedure.....	74
M.3 Exposure Resistance Classes	75
M.4 Specifications to implement PBA for precast concrete products.....	75
Bibliography	76