

Indian Standard

**PLAIN AND REINFORCED CONCRETE CODE —
OF PRACTICE**

(*Fourth Revision*)

1 SCOPE

1.1 This standard deals with the general structural use of plain and reinforced concrete.

1.1.1 For the purpose of this standard, plain concrete structures are those where reinforcement, if provided is ignored for determination of strength of the structure.

1.2 Special requirements of structures, such as shells, folded plates, arches, bridges, chimneys, blast resistant structures, hydraulic structures, liquid retaining structures and earthquake resistant structures, covered in respective standards have not been covered in this standard; these standards shall be used in conjunction with this standard.

2 REFERENCES

The Indian Standards listed in Annex A contain provisions which through reference in this text, constitute provisions of this standard. At the time of publication, the edition indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated in Annex A.

ANNEX A

(*Clause 2*)

LIST OF REFERRED INDIAN STANDARDS

<i>IS No.</i>	<i>Title</i>
269 : 1989	Specification for ordinary Portland cement, 33 grade (<i>fourth revision</i>)
383 : 1970	Specification for coarse and fine aggregates from natural sources for concrete (<i>second revision</i>)
432 (Part 1) : 1982	Specification for mild steel and medium tensile steel bars and hard-drawn steel wire for concrete reinforcement: Part 1 Mild steel and medium tensile steel bars (<i>third revision</i>)

<i>IS No.</i>	<i>Title</i>
455 : 1989	Specification of Portland slag cement (<i>fourth revision</i>)
516 : 1959	Method of test for strength of concrete
875	Code of practice for design loads (other than earthquake) for Buildings and structures :
(Part 1) : 1987	Dead load — Unit weights of building material and stored materials (<i>second revision</i>)
(Part 2) : 1987	Imposed loads (<i>second revision</i>)
(Part 3) : 1987	Wind loads (<i>second revision</i>)
(Part 4) : 1987	Snow loads (<i>second revision</i>)
(Part 5) : 1987	Special loads and load combinations (<i>second revision</i>)
1199 : 1959	Methods of sampling and analysis of concrete
1343 : 1980	Code of practice for prestressed concrete (<i>first revision</i>)
1489	Specification for Portland pozzolana cement :
(Part 1) : 1991	Fly ash based (<i>third revision</i>)
(Part 2) : 1991	Calcined clay based (<i>third revision</i>)
1566 : 1982	Specification for hard-drawn steel wire fabric for concrete reinforcement (<i>second revision</i>)
1641 : 1988	Code of practice for fire safety of buildings (general): General principles of fire grading and classification (<i>first revision</i>)
1642 : 1989	Code of practice for fire safety of buildings (general) : Details of construction (<i>first revision</i>)
1786 : 1985	Specification for high strength deformed steel bars and wires for concrete reinforcement (<i>third revision</i>)
1791 : 1968	Specification for batch type concrete mixers (<i>second revision</i>)
1893 : 1984	Criteria for earthquake resistant design of structures (<i>fourth revision</i>)
1904 : 1986	Code of practice for design and construction of foundations in soils : General requirements (<i>third revision</i>)
2062 : 1992	Steel for general structural purposes(<i>fourth revision</i>)
2386 (Part 3) : 1963	Methods of test for aggregates for concrete: Part 3 Specific gravity, density, voids, absorption and bulking
2502 : 1963	Code of practice for bending and fixing of bars for concrete reinforcement
2505 : 1980	Concrete vibrators—Immersion type — General requirements
2506 : 1985	General requirements for screed board concrete vibrators (<i>first revision</i>)
2514 : 1963	Specification for concrete vibrating tables
2751 : 1979	Recommended practice for welding of mild steel plain and deformed bars for reinforced construction (<i>first revision</i>)
3025	Methods of sampling and test (physical and chemical) for water and waste water:
(Part 17) : 1984	Non-filterable residue (total suspended solids) (<i>first revision</i>)
(Part 18) : 1984	Volatile and fixed residue (total filterable and non-filterable) (<i>first revision</i>)
(Part 22) : 1986	Acidity (<i>first revision</i>)
(Part 23) : 1986	Alkalinity (<i>first revision</i>)
(Part 24) : 1986	Sulphates (<i>first revision</i>)
(Part 32) : 1988	Chloride (<i>first revision</i>)
3414 : 1968	Code of practice for design and installation of joints in buildings
3812 : 1981	Specification for fly ash for use as pozzolana and admixture (<i>first revision</i>)
3951 (Part 1) : 1975	Specification for hollow clay tiles for floors and roofs: Part 1 Filler type (<i>first revision</i>)
4031 (Part 5) : 1988	Methods of physical tests for hydraulic cement : Part 5 Determination of initial and final setting times (<i>first revision</i>)
4082 : 1996	Recommendations on stacking and storage of construction materials and components at site (<i>second revision</i>)
4326 : 1993	Code of practice for earthquake resistant design and construction of buildings (<i>second revision</i>)

<i>IS No.</i>	<i>Title</i>
4656 : 1968	Specification for form vibratos for concrete
4845 : 1968	Definitions and terminology relating to hydraulic cement
4925 : 1968	Specification for concrete batching and mixing plant
4926 : 1976	Specification for ready-mixed concrete (<i>second revision</i>)
5816 : 1999	Methods of test for splitting tensile strength of concrete (<i>first revision</i>)
6061	Code of practice for construction of floor and roof with joists and filler blocks:
(Part 1) : 1971	With hollow concrete filler blocks
(Part 2) : 1971	With hollow clay filler blocks (<i>first revision</i>)
6452 : 1989	Specification for high alumina cement for structural use
6461	Glossary of terms relating to cement
(Part 1) : 1972	Concrete aggregates
(Part 2) : 1972	Materials
(Part 3) : 1972	Concrete reinforcement
(Part 4) : 1972	Types of concrete
(Part 5) : 1972	Formwork for concrete
(Part 6) : 1972	Equipment, tool and plant
(Part 7) : 1973	Mixing, laying, compaction, curing and other construction aspect
(Part 8) : 1973	Properties of concrete
(Part 9) : 1973	Structural aspects
(Part 10) : 1973	Tests and testing apparatus
(Part 11) : 1973	Prestressed concrete
(Part 12) : 1973	Miscellaneous
6909 : 1990	Specification for supersulphated cement
7861	Code of practice for extreme weather concreting :
(Part 1) : 1975	Recommended practice for hot weather concreting
(Part 2) : 1975	Recommended practice for cold weather concreting
8041 : 1990	Specification for rapid hardening Portland cement (<i>second revision</i>)
8043 : 1991	Specification for hydrophobic Portland cement (<i>second revision</i>)
8112 : 1989	Specification for 43 grade ordinary Portland cement (<i>first revision</i>)
9013 : 1978	Method of making, curing and determining compressive strength of accelerated cured concrete test specimens
9103 : 1999	Specification for admixtures for concrete (<i>first revision</i>)
9417 : 1989	Recommendations for welding cold worked bars for reinforced concrete construction (<i>first revision</i>)
11817 : 1986	Classification of joints in buildings for accommodation of dimensional deviations during construction
12089 : 1987	Specification for granulated slag for manufacture of Portland slag cement
12119 : 1981	General requirements for pan mixers for concrete
12269 : 1981	Specification for 53 grade ordinary Portland cement
12330 : 1988	Specification for sulphate resisting Portland cement
12600 : 1989	Specification for low heat Portland cement
13311	Methods of non-destructive testing of concrete:
(Part 1) : 1992	Ultrasonic pulse velocity
(Part 2) : 1992	Rebound hammer
13920 : 1993	Code of practice for ductile detailing of reinforced concrete structures subjected to seismic forces
14687 : 1999	Guidelines for falsework for concrete structures