

**AMENDMENT NO. 1 JUNE 2001**  
**TO**  
**IS 456 : 2000 PLAIN AND REINFORCED CONCRETE — CODE OF PRACTICE**  
**( Fourth Revision )**

( Page 2, Foreword, last but one line ) — Substitute 'ACI 318 : 1995' for 'ACI 318 : 1989'.

( Page 11, clause 4 ) — Delete the matter 'L<sub>w</sub> — Horizontal distance between centres of lateral restraint'.

( Page 15, clause 5.5, Title ) — Substitute 'Chemical Admixtures' for 'Admixtures'.

( Page 17, clause 7.1 ) — Substitute the following for the existing informal table:

Placing Conditions	Degree of Workability	Slump (mm)
(1)	(2)	(3)
Blinding concrete; Shallow sections; Pavements using pavers	Very low	See 7.1.1
Mass concrete; Lightly reinforced sections in slabs, beams, walls, columns; Floors; Hand placed pavements; Canal lining; Strip footings	Low	25-75
Heavily reinforced sections in slabs, beams, walls, columns;	Medium	50-100
Slipform work; Pumped concrete	Medium	75-100
Trench fill; In-situ piling	High	100 -150
Tremie concrete	Very high	See 7.1.2

NOTE — For most of the placing conditions, internal vibrators (needle vibrators) are suitable. The diameter of the needle shall be determined based on the density and spacing of reinforcement bars and thickness of sections. For tremie concrete, vibrators are not required to be used (see also 13.3).

( Page 19, Table 4, column 8, sub-heading ) — Substitute 'Free' for 'Face'.

( Page 27, clause 13.5.3 ) — Delete.

( Page 29, clause 15.3 ):

a) Substitute 'specimens' for 'samples' in lines 2, 6 and 7.

b) Substitute 'IS 9013' for 'IS 9103'.

( Page 29, clause 16.1 ) — Substitute 'conditions' for 'condition' in line 3 and the following matter for the existing matter against 'a') :

'a) The mean strength determined from any group of four non-overlapping consecutive test results complies with the appropriate limits in column 2 of Table 11.'

( Page 29, clause 16.3, para 2 ) — Substitute 'col 3' for 'col 2'.

( Page 29, clause 16.4, line 2 ) — Substitute '16.1 or 16.2 as the case may be' for '16.3'.

( Page 30, Table 11, column 3 ) — Substitute ' $\geq f_{ck} - 3$ ' for ' $\geq f_{ck}^{-3}$ ' and ' $\geq f_{ck} - 4$ ' for ' $\geq f_{ck}^{-4}$ '.

( Page 33, clause 21.3, line 2 ) — Substitute 'section' for 'section'.

[ Page 37, clause 23.1.2(c) ] — Substitute ' $b_c$ ' for ' $b_c$ ', ' $l_0$ ' for ' $l_0$ ', ' $b$ ' for ' $b$ ' and ' $b_w$ ' for ' $b_w$ ' in the formulae.

( Page 46, clause 26.4.2 ) — Substitute '8.2.2' for '8.2.3'.

[ Page 49, clause 26.5.3.2 (c) (2), last line ] — Substitute '6 mm' for '16 mm'.

( Page 62, clause 32.2.5 ) — Substitute ' $H_w^2$ ' for ' $H_{wz}$ ' in the explanation of  $e_s$ .

( Page 62, clause 32.3.1, line 4 ) — Substitute '32.4' for '32.3'.

[ Page 62, clause 32.4.3 (b), line 6 ] — Insert ' $\tau_{cw}$ ' between the words 'but' and 'shall'.

[ Page 65, clause 34.2.4.1(a), last line ] — Insert the following after the words 'depth of footing' :

'in case of footings on soils, and at a distance equal to half the effective depth of footing'.

( Page 68, Table 18, col 4 ) — Substitute '-' for '1.0' against the Load Combination  $DL + IL$ .

( Page 72, clause 40.1 ) — Substitute ' $bd$ ' for ' $b_d$ ' in the formula.

( Page 83, clause B-4.3, line 2 ) — Delete the word 'and' .

( Page 85, clause B-5.5.1, para 2, line 6 ) — Substitute 'Table 24' for 'Table 23'.

( Page 85, clause B-5.5.2 ) — Substitute the following for the existing formula:

$$'A_s = a_d b (\tau_v - 2d \tau_c / a_v) / \sigma_{sv} \geq 0.4 a_v b / 0.87 f_y'$$

( Page 90, clause D-1.11, line 1 ) — Substitute 'Where' for 'Torsion'.

( Page 93, Fig. 27 ) — Substitute ' $l_e/l$ ' for ' $l/L$ '.

( Page 95, Annex F ):

a) The reference to Fig. 28 given in column 1 of the text along with the explanation of the symbols used in the Fig. 28 given thereafter may be read just before the formula given for the rectangular tension zone.

b) Substitute 'compression' for 'campression' in the explanation of symbol ' $a$ ' .

( Pages 98 to 100, Annex H ) — Substitute the following for the existing Annex :

## ANNEX H

(Foreword)

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