

**GENERAL SPECIFICATION
FOR CIVIL ENGINEERING WORKS**

1992 Edition

CORRIGENDUM No. 1/2005 (March)

VOLUME 2

SECTION 16

CONCRETE AND JOINTS IN CONCRETE

(a) Clause 16.09 (2)(a)

Replace the clause by the following:

- (a) The density of the recycled water shall not exceed 1030 kg/m^3 .

Table 16.7A to be replaced by the following Table

Table 16.7A: Recycled water testing for each batching plant location

Description	Limits	Test method	Test frequency
Physical test (a) Density test for recycled water (b) Initial setting time of cement with recycled water (time of set, deviation from control, h:min)	$\leq 1030 \text{ kg/m}^3$ From 1:00 earlier to 1:30 later	Note 1 BS EN 196-3 : 1995	At least once per day Once every 3 months for the first year and thereafter at half-yearly intervals
Chemical test for recycled water (a) Chloride content (as Cl): - prestressed concrete steam-cured structural concrete - concrete with reinforcement or other embedded metal (b) Sulphate content (as SO_4) (c) Acid-soluble alkali content	500 ppm 1,000 ppm 3,000 ppm 600 ppm	APHA 4500-Cl-B, 18th Edition (1992) APHA 4500-Cl-B, 18th Edition (1992) APHA 4500-SO42-C, 18th Edition (1992) APHA 3500-K-C & 3500-Na-C, 18th Edition (1992)	For all tests: (i) Once per week for the first 2 months (ii) Once per month for the next 12 months thereafter (iii) In case of a weekly or monthly test indicates that the limits are exceeded, the water shall immediately be suspended for use in concrete mixing until two sets of consecutive test results taken from the same source are satisfactory. In such case, the testing frequency shall be maintained at or reverted back to once per week until two sets of consecutive test results are satisfactory. (iv) The testing frequency shall be subject to review after the 12-month period for the monthly test

- Notes:
1. Test method to be proposed by the Contractor for the acceptance of the Engineer.
 2. Laboratories accredited by HOKLAS for the relevant tests shall be used, if available, in which case results shall be issued on HOKLAS endorsed test reports

