Builder Tip
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Concrete Mixes For Housing

The Building Standards Department issues Builder Tips as part of our customer service program. They are designed to provide an improved understanding of the Building Code and to reduce the costs associated with correcting infractions. Please contact your area building inspector for further information or call the Building Standards Department at 905.475.4848 extension 2189

9.3.1. Concrete

9.3.1.1. General

(1) Except as provided in Sentence (2), and Articles 9.3.1.6. and 9.3.1.7., unreinforced and nominally reinforced concrete shall be designed, mixed, placed, cured and tested in accordance with the requirements for “R” class concrete stated in Section 9 of CSA A23.1, “Concrete Materials and Methods or Concrete Construction.

9.3.1.2. Cement

(1) Cement shall meet the requirements of CAN/CSA A3001, “Cementitious Materials for Use in Concrete”.

9.3.1.7. Concrete Mixes (See Note A-9.3.1.7.)

(1) For pre-mixed concrete and for site-batched concrete mixes described in Table 9.3.1.7., the maximum ratio of water to cementing materials measured by weight shall not exceed

(a) 0.45 for garage floors, carport floors and all exterior flatwork,

(b) 0.65 for interior floors other than those for garages and carports, and

(c) 0.70 for all other applications.

OBJECTIVE

The slump test used to determine the acceptability of concrete mixes has been replaced by the ratio of water to cementing materials (cement, fine aggregate, course aggregate). The required values of concrete mixes are shown in Table 9.3.1.7. of the Building Code. Manufactures and builders are required to mix concrete according to the values indicated on the table and shall not be altered at the time of placement.

Where necessary, the building inspector may request verification of the correctness of concrete mixes as they apply to the appropriate applications. The inspector may request a copy of the mixed batch card on site or ordering a third party evaluation test.

TABLE 9.3.1.7.

MAXIMUM SIZE OF COURSE AGGREGATE MM (IN)	MATERIALS, VOLUME					
	CEMENT		FINE AGGREGATE (DAMP AVERAGE COURSE SAND)		COURSE AGGREGATE (GRAVEL OR CRUSHED STONE)	
	PARTS	L	PARTS	L	PARTS	L
14 (1/2)	1	28	1.75	49	2	56
20 (3/4)	1	28	1.75	49	2.5	70
28 (1 1/8)	1	28	2	56	3	84
40 (1 1/2)	1	28	2	56	3.5	98