

**STANDARDS FOR CEMENT
CONSUMPTION FOR DIFFERENT
ITEMS OF WORK**

Government of Gujarat

Roads & Building Department,

Circular No. PRC/10/2017/Cement Consumption/16/C

14, Sardar Bhavan, 2nd Floor,

Sachivalaya, Gandhinagar

Date:- 11/05/2017

Read:- Government of Gujarat, Road & Building Department, Sachivalaya, Gandhinagar Circular No. SOR/1085/7/H(1) dated 08/12/1986

CIRCULAR

The uniform rate of cement consumption for various item was prepared and circulated vide No. SOR/1085/7/H(1) dated 08/12/1986.

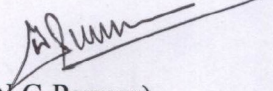
At the outset, current practice of estimating cement consumption in concrete item of various Building, Bridge and Road project is based on above circular. However, it is generally observed that the cement consumption derived by actual mix design is lower than the standard cement consumption. Some of provision of the said circular become obsolete due to subsequent revisions in the relevant IS code and IRC code. The maximum cement consumption as per IS : 456-2000 and IRC : 112-2011 is 450 Kg./m³ . Also cement industry and aggregate crushing industry have involved better quality of cement and aggregate over the years which have far reacting impact on mix design of the present day concrete.

Mix design report of GERI reflecting entire Gujarat region have been considered in averaging the cement consumption in various grade of design mix concrete. To minimize the difference between standard cement consumption of cement and actual consumption derived by mix design by GERI and the cement consumption as per provision of IS and IRC code falling cement consumption is proposed for estimation purpose.

Looking the above facts, the cement consumption mentioned in circular vide No. SOR/1085/7/H(1) dated 08/12/1986 is required to modify as per below:

| EXISTING ITEM | | | AMENDMENT | | |
|--|-------|---|--|-------|--|
| Item | Unit | Quantity of cement to be used per unit quantity of work in Kg | Item | Unit | Quantity of cement to be used per unit quantity of work in Kg. |
| Building, Road & Bridge Items | | | | | |
| Providing & casting in situ ordinary cement concrete M75 for PCC work | Cu.m. | 160 | Providing & casting in situ ordinary cement concrete M7.5 for PCC work | Cu.m. | 160 |
| Providing & casting in situ ordinary cement concrete M100 for PCC work | Cu.m. | 220 | Providing & casting in situ ordinary cement concrete M10 for PCC work | Cu.m. | 220 |
| Providing & casting in situ ordinary cement concrete M150 for PCC work | Cu.m. | 320 | Providing & casting in situ ordinary cement concrete M15 for PCC work | Cu.m. | 290 |
| Providing and casting situ control cement concrete M200 for RCC work | Cu.m. | 400 | Providing and casting situ control cement concrete M20 for RCC work | Cu.m. | 360 |
| Providing and casting situ control cement concrete M250 for RCC work | Cu.m. | 450 | Providing and casting situ control cement concrete M25 for RCC work | Cu.m. | 380 |
| Providing and casting situ control cement concrete M350 for RCC work | Cu.m. | 500 | Providing and casting situ control cement concrete M35 for RCC work | Cu.m. | 425 |
| Providing and casting situ control cement concrete M400 for RCC work | Cu.m. | 525 | Providing and casting situ control cement concrete M40 for RCC work | Cu.m. | 440 |
| Providing and casting situ control cement concrete M450 for RCC work | Cu.m. | 540 | Providing and casting situ control cement concrete M45 for RCC work | Cu.m. | 450 |
| New Item | | | | | |
| - | - | - | Providing and casting situ control cement concrete M30 for RCC work | Cu.m. | 410 |

The cement consumption of other than above concrete item and other details mentioned in circular vide No. SOR/1085/7/H(1) dated 08/12/1986 will be remain same.


(N.G. Parmar)
Officer on Special Duty (S.P)
R&B Department
Gandhinagar

To,

- 1) The Personal Secretary, Office of the Secretary, Road & Building Department, Sachivalaya, Gandhinagar
- 2) The Personal Secretary, Office of the Secretary, Narmada, Water Resources, Water Supply and Kalpsar Department, Sachivalaya, Gandhinagar
- 3) The Personal Secretary, Office of the Principal Secretary, Health & Family Welfare Department, Sachivalaya, Gandhinagar
- 4) The Personal Secretary, Office of the Additional Chief Secretary, Urban Development and Urban Housing Department, Sachivalaya, Gandhinagar
- 5) The Personal Secretary, Office of the Principal Secretary, Panchayat, Rural Housing and Rural Development Department, Sachivalaya, Gandhinagar
- 6) Accountant General, Rajkot/Ahmedabad
- 7) All the Chief Engineers, Road & Building Department, Sachivalaya, Gandhinagar
- 8) All the Chief Engineers, Narmada, Water Resources, Water Supply and Kalpsar Department, Sachivalaya, Gandhinagar
- 9) The Managing Director, Gujarat State Road Development Corporation, Nirman Bhavan, Gandhinagar
- 10) The Chief Engineer & Director, Staff Training College, Gandhinagar
- 11) The Director, Gujarat Engineering Research Institute (GERI), Vadodara
- 12) The Under Secretary, Gujarat Vigilance Commission, Vigilance Bhavan, Gandhinagar
- 13) All the Superintending Engineers, Road & Building Department (State, Panchayat, National Highway, Capital Project Circle, Electric Circle)
- 14) All the Executive Engineers, (as above circles)
- 15) All Technical Officers, Road & Building Department, Sachivalaya, Gandhinagar
- 16) All Technical Branches, Road & Building Department, Sachivalaya, Gandhinagar
- 17) President, Gujarat Contractors Association, Gajjara Hall, Law Garden, Law College Road, Ahmedabad
- 18) Branch Select file-2017