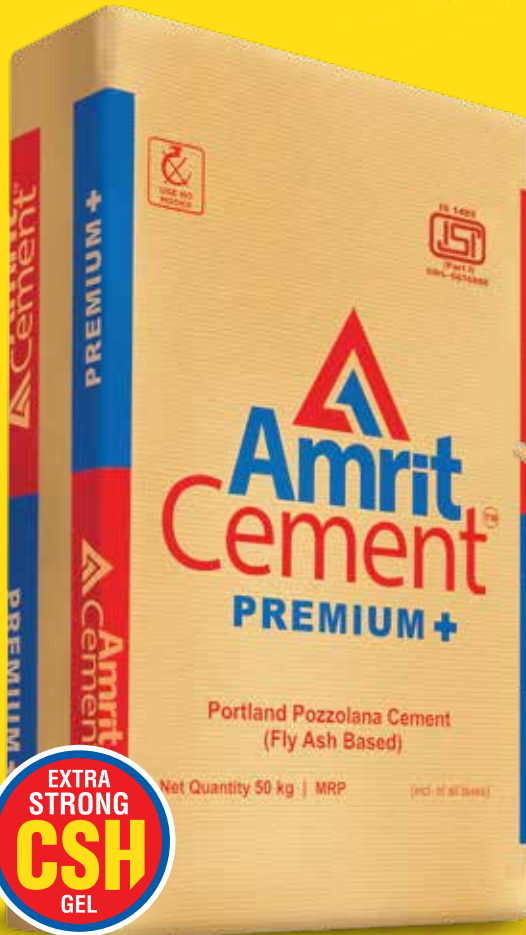


WHAT IS RCC?



Reinforced Concrete Construction

Reinforced cement concrete is the most widely used construction and improper quality of concrete, inadequate concrete cover is major cause of distress in structures. From a durability point of view, the minimum grades of concrete to be allowed are as given below,

EXPOSURE	PLAIN CONCRETE	RCC
Mild	Minimum Cement content should be 220 kg/m ³ of concrete with mixing water @30 liters per bag of content	Minimum cement content should be 300kg/m ³ of concrete with mixing water @ 27.5 liters per bag of cement to achieve M 20 concrete. The Nominal Mix ratio to be followed for M 20 may be 1:1½:3 (Cement: Sand: Crushed stone of 20mm size)
Moderate	Minimum cement content should be 240kg/m ³ of concrete with mixing water @ 30 liters per bag of the cement to achieve M15 grade of concrete. The nominal mix ratio to be followed for M 15 may be 1:2:4 (Cement: Sand: Crushed stone of 20mm size)	Minimum Cement content should be 300kg/m ³ of Concrete with mixing water @ 25 liters per bag of cement. The Nominal Mix ratio to be followed for M 25 may be 1:1:2 (Cement: Sand: Crushed stone of 20mm size)
Severe	Minimum cement content should be 250kg/m ³ of Concrete with mixing water @ 25 liters per bag of the cement to achieve M20 Grade of concrete. The Nominal mix ratio to be followed for M20 may be 1:1½:3 (cement: sand : crushed stone of 20mm size)	Minimum cement content should be 320kg/m ³ of Concrete with mixing water @ 22.5 liters per bag of concrete to achieve M 30 concrete. The mix ratio can be calculated as per design
Very Severe	Minimum cement content should be 260kg/m ³ of concrete with mixing water @ 22.5 liters per bag of cement to achieve M20 Grade of concrete. The Nominal Mix ratio to be followed for M20 may be 1:1½:3 (cement: sand: crushed stone of 20mm size)	Minimum cement content should be 340kg/m ³ of concrete with mixing water @ 22.5 liters per bag of cement to achieve M35 grade of concrete. The mix ratio for M35 may be calculated as per design
Extreme	Minimum cement content should be 280kg/m ³ of concrete with mixing water @ 25 liters per bag of cement to achieve M25 Grade of concrete. The Nominal Mix ratio to be followed for M25 may be 1:1:2 (cement: sand: crushed stone of 20mm size)	Minimum cement content should be 360kg/m ³ of Concrete with mixing water @ 20 liters per bag of cement to achieve M40 grade of concrete. The mix ratio for M40 may be calculated as per design

The quantity of water mentioned here is maximum. In order to achieve highest workability, using water up to the maximum limit is not encouraged. Care should be taken to use the quantity of water judiciously and avoid use of too much water to prevent bleeding and segregation.