

## Ready Mix Concrete

Few things are more aggravating to produce on a worksite than concrete. Bags of cement, sand, aggregate (gravel) and possibly other additives must be delivered to the construction area. A supply of clean water is also necessary, along with a rented concrete mixing hopper. Even after all the dusty and heavy ingredients have been loaded into the hopper, one small error in the wet/dry ratio can render an entire batch of concrete unusable. One common solution to this messy and time-consuming problem is "READY MIX CONCRETE". Ready-mix concrete (RMC) is a ready-to-use material, with predetermined mixture of cement, sand, aggregates and water. RMC is a type of concrete manufactured in a factory according to a set recipe or as per specifications of the customer, at a centrally located batching plant.

It is delivered to a worksite, often in truck mixers capable of mixing the ingredients of the concrete en route or just before delivery of the batch. This results in a precise mixture, allowing specialty concrete mixtures to be developed and implemented on construction sites. The second option available is to mix the concrete at the batching plant and deliver the mixed concrete to the site in an agitator truck, which keeps the mixed concrete in correct form. In the case of the centrally mixed type, the drum carrying the concrete revolves slowly so as to prevent the mixed concrete from "segregation" and prevent its stiffening due to initial set.

However, in the case of the truck-mixed concrete, the batched materials (sand, gravel and cement) are carried and water is added just at the time of mixing. In this case the cement remains in contact with the wet or moist material and this phase cannot exceed the permissible period, which is normally 90 minutes.