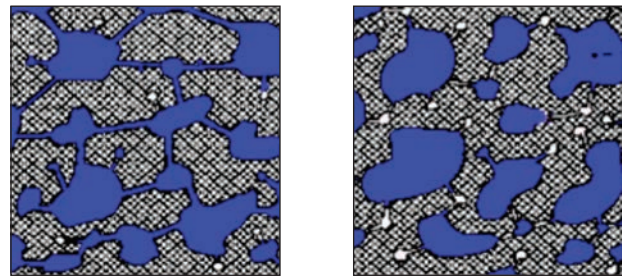
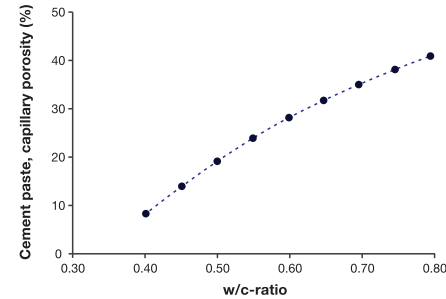


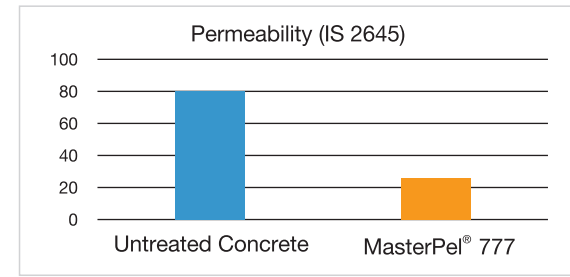
MasterPel 777 as an integral waterproofer (IS:2645)

The presence of capillary pores influences concrete permeability to a large extent. The ingress of aggressive agents into the pore structure is responsible for various durability problems in concrete structures. Therefore, a durable concrete should have low permeability. Permeability of concrete increases with the increase in porosity which is determined by water-cement ratio.

MasterPel 777 acts as a porosity reducer by dispersing the cement homogeneously throughout the matrix. This means that the concrete treated with **MasterPel 777** undergoes more efficient "Hydration" forming very tight interlocking of hydration compounds. Pores cannot be completely eliminated and is dependent on the water cement ratio of concrete. The efficient dispersion achieved through **MasterPel 777** not only helps in reducing the size of pore but also the makes it discontinuous.



Continuous Pores Discontinuous Pores

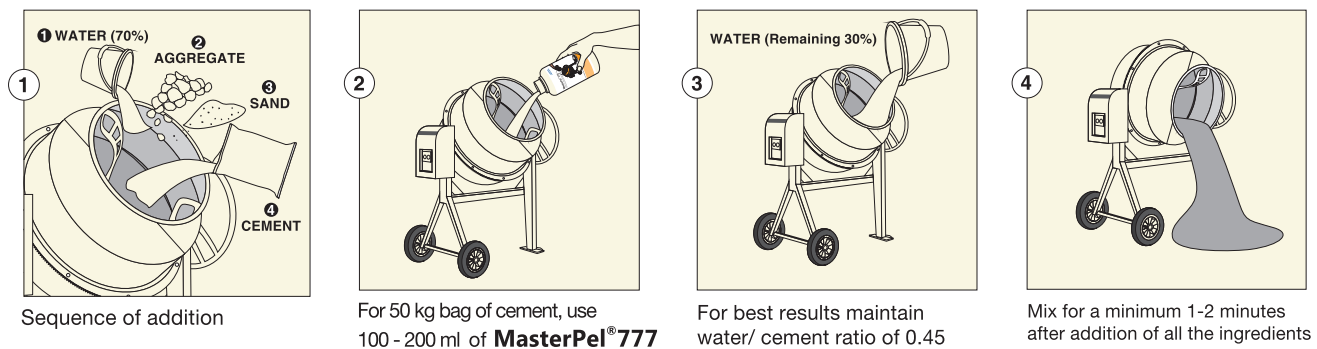


MasterPel 777 can be used in

- All types of concrete – residential, commercial and infrastructure
- Concrete / mortar against rain / surface water
- Against pressure heads in structures, water ingress in tidal / splash zones
- Reducing chloride diffusion by preventing build-up of absorbed chlorides at surface

MasterPel 777 provides an overall economic solution owing to its dual action lowering the overall cost of the project as it is added into the concrete at the time of batching.

How to use:



Sequence of addition

For 50 kg bag of cement, use 100 - 200 ml of **MasterPel 777**

For best results maintain water/ cement ratio of 0.45

Mix for a minimum 1-2 minutes after addition of all the ingredients



Master Builders Solutions from BASF for the Construction Industry

MasterAir®

Complete solutions for air entrained concrete

MasterBrace®

Solutions for concrete strengthening

MasterCast®

Solutions for the manufactured concrete product industry

MasterCem®

Solutions for cement manufacture

MasterEase®

Low viscosity for high performance concrete

MasterEmaco®

Solutions for concrete repair

MasterFinish®

Solutions for formwork treatment and surface improvement

MasterFlow®

Solutions for precision grouting

MasterFiber®

Comprehensive solutions for fiber reinforced concrete

MasterGlenium®

Solutions for high performance concrete

MasterInject®

Solutions for concrete injection

MasterKure®

Solutions for concrete curing

MasterLife®

Solutions for enhanced durability

MasterMatrix®

Advanced rheology control for concrete

MasterPel®

Solutions for water tight concrete

MasterPolyheed®

Solutions for mid-range concrete

MasterPozzolith®

Solutions for water-reduced concrete

MasterProtect®

Solutions for concrete protection

MasterRheobuild®

Solutions for high strength concrete

MasterRoc®

Solutions for underground construction

MasterSeal®

Solutions for waterproofing and sealing

MasterSet®

Solutions for set control

MasterSure®

Solutions for extraordinary workability retention

MasterTop®

Solutions for industrial and commercial floors

Master X-Seed®

Advanced accelerator solutions for concrete

Ucrete®

Flooring solutions for harsh environments



MasterPel® 777

Robust 2-in-1, waterproofing and water reducing concrete/ mortar admixture

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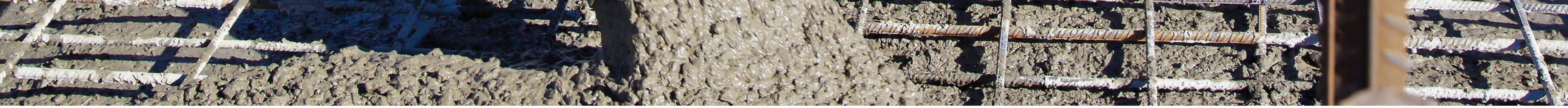
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Master Builders Solutions from BASF

comprehensive

Master Builders Solutions brand brings all of BASF's expertise together to create chemical solutions for new construction, maintenance, repair and renovation of structures. Master Builders Solutions is built on the experience gained from more than a century in the construction industry.

The know-how and experience of a global community of BASF construction experts form the core of Master Builders Solutions. We combine the right elements from our portfolio to solve your specific construction challenges. We collaborate across areas of expertise and regions and draw on the experience gained from countless construction projects worldwide. We leverage global BASF technologies, as well as our in-depth knowledge of local building needs, to develop innovations that help make you more successful and drive sustainable construction.

The comprehensive portfolio under Master Builders Solutions brand encompasses concrete admixtures, cement additives, chemical solutions for underground constructions, waterproofing solutions, sealants, concrete repair and protection solutions, performance grouts and performance flooring solutions.

From a simple 1:2:4 nominal mix concrete (see fig below) to designing high performance concrete, with the advent of admixture technology concrete industry has grown leaps and bounds in the last two decades. With the treatment ratio increasing day by day, it becomes imperative to choose the right product, given the wide range of products in the market and material variations faced in the site. The choice of right admixture is not only important from the material variations point of view but also from the application and handling reasons as well.



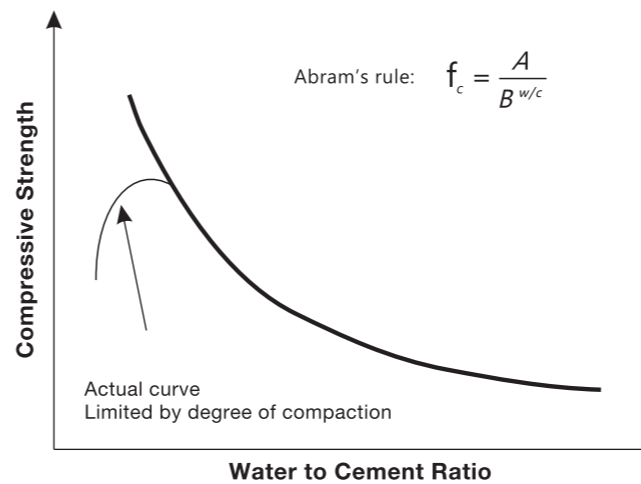
1 part cement 2 parts sand 4 parts gravel



Challenges

A large part of the cement consumed in India is bagged cement especially in the rural areas, where the treatment ratio of admixture is low. The reason the treatment ratio is lower is that the knowledge and awareness on the various types of admixtures and its applications are quite low. The admixture today are being used in for notional purposes rather than the real need.

Tropical India has both heat and rainfall conditions and therefore good quality control practices are very important during the construction process. The long coastal regions in India have incessant rainfall during the monsoon season and failure to take care of concrete will lead to leaking roofs and fast deterioration of the structures. According to Duff Abrams law, under controlled compaction scenario, the water to cement ratio is inversely proportional to the strength of the concrete.



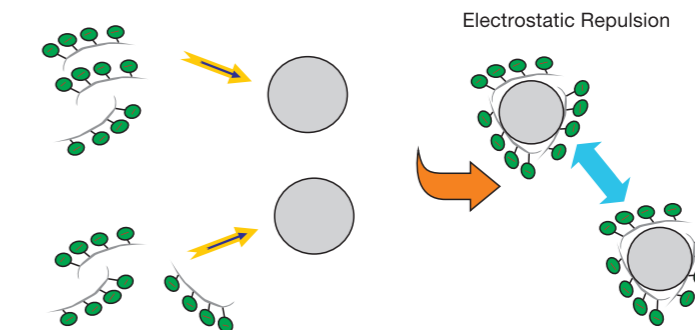
The concrete produced in the rural areas is volume batched and the addition of water is left to the skills of the person batching the concrete. The choice on the amount of water depends on the workability required and therefore it is always added in excess. This lack of control in water addition in concrete gives rise to issues not only on strength but also the porosity in concrete, ultimately affecting the durability of the concrete. The need of the day is an admixture that not only helps in decreasing the quantity of water added in concrete for a given workability but also reducing the porosity in the mix significantly.

Master Builders Solutions from BASF introduces its innovative and unique admixture, which is the first 2-in-1 combination admixture to provide basic water reducing and waterproofing properties in concrete. MasterPel 777 is a state-of-the-art dual action admixture (water reducing and waterproofing) which not only disperses cement particles to release entrapped water, but also effectively reduces the porosity in concrete by making the concrete dense. MasterPel 777 is an unique 'robust' admixture introduced in the market which works with all types of cements and complies with:

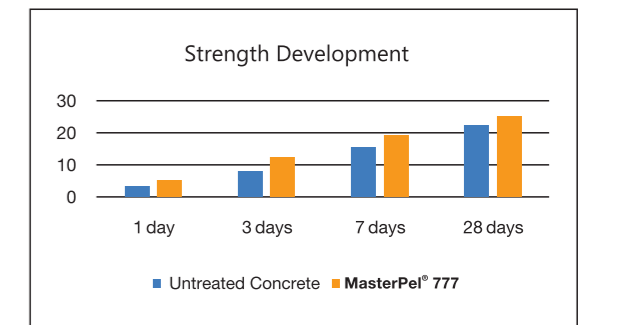
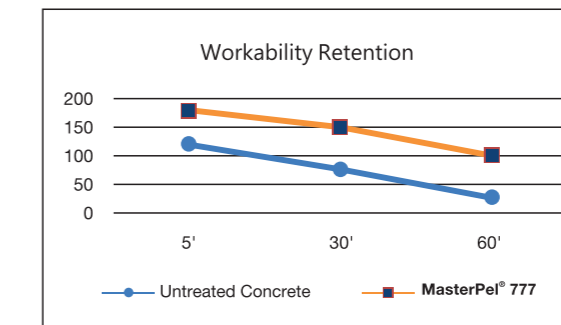
- IS 9103 (for concrete admixtures) and
- IS 2645 (Integral waterproofing admixture for mortars and concrete)

MasterPel 777 as a water reducer (IS: 9103)

MasterPel 777, when added into concrete gets adsorbed on the surface of the cement particles and disperses them by an action called 'electrostatic repulsion' (see fig below). The entrapped water is therefore released improving the workability of the concrete to a great extent.



It is a well-known fact that lesser the water in the concrete mix, better is the quality and strength development in concrete. However, maintaining the workability becomes difficult. A typical dosage of 100-200 ml per 50 kg bag of cement, with the new innovative MasterPel 777 in the mix, not only enables the reduction of water by 5-10% but also allows to retain the workability of concrete.



MasterPel 777 can be used in three ways with flexibility:

1. Reduces the free water in the mix for similar workability as the control (untreated) concrete
2. Increases the workability and thus the working time of the same water content
3. A combination of both is also possible