

# MasterPel<sup>®</sup> 777

**Robust 2-in-1 High Performance, Water-reducing and Waterproofing Concrete / Mortar Admixture**

## DESCRIPTION

**MasterPel 777** is an innovative liquid admixture designed specifically to allow superior workability in concrete / mortar mixes with reduced water and also achieve high resistance to water ingress. It is based on a specially formulated polymers and compatible with all types of cement and binders (like fly ash, ground granulated slag, silica fume, metakaolin, etc).

## RECOMMENDED USES

**MasterPel 777** can be used in all types of concrete and mortar that is used in all types of residential, commercial and infrastructural construction. Additionally, it can be used in concrete applications constantly or intermittently in contact with water such as sea walls, tunnels, basements, structural and pre-cast concrete in exposed superstructures.

**MasterPel 777** is used as a dual action admixture combining both the waterproofing cum plasticizing effect for cement concrete, mortars and plasters.

## FEATURES AND BENEFITS

- Liquid – Easy to use.
- Low dosage – Economical.
- Water-reducing admixture - Improves workability, cohesion, pumpability and reduces segregation.
- Improved surface finish.
- Improved compressive strengths
- Waterproofing admixture - Provides resistance to water penetration either under hydrostatic pressure or capillary absorption.
- Increased durability.

## PERFORMANCE TEST DATA

Aspect	Dark Brown liquid
Specific gravity	1.035 ± 0.02 at 25°C
pH	≥6
Chloride ion content	<0.2%
Reduction in permeability to water, IS: 2654 – 2003	<50% of control mortar specimen

Compressive Strength at 3 days, as per IS: 2645 - 2003	>90% of control mortar specimen
Compressive Strength at 7 days, as per IS: 2645 - 2003	>90% of control mortar specimen

## TEST CERTIFICATION/APPROVALS

- IS:2645-2003
- IS:9103-1999
- ASTM C494: Types A & D

## DOSAGE

As a guide, a dosage range of 100 ml to 200 ml per 50kg bag of cementitious material is recommended.

Optimum dosage of **MasterPel 777** should be determined with trial mixes. Higher dosages may be required when certain combinations of materials and conditions are present or water reduction in excess of 15% is required. Because of variations in concrete materials, job site conditions, and/or applications, dosages outside of the recommended range may be required. In such cases, contact your local Master Builders Solutions representative.

For additional information on **MasterPel 777** admixture or on its use in developing concrete mixes with special performance characteristics, contact your local Master Builders Solutions representative.

## Points to remember when producing waterproof concrete:

- Ensure w/c ratio is in the range of 0.40 to 0.60.
- Keep water content as low as possible.
- Place concrete quickly and compact it well.
- Ensure complete curing with a MasterKure curing compound.

## Effects of over dosage

A severe over-dosage of **MasterPel 777** shall result in some of the followings:

- Extension of initial and final set
- Increase in air entrainment
- Bleed/segregation of mix, quick loss of workability
- Increased plastic shrinkage

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A slight overdosing may not adversely affect the ultimate strength of the concrete and can achieve higher strengths than normal concrete, provided it is properly compacted and cured. Due allowance should be made for the effect of fluid concrete pressure on formwork, and stripping times should be monitored.

In the event of over dosage, contact your local Master Builders Solutions representative immediately.

### APPLICATION

**MasterPel 777** is a ready-to-use liquid which is dispensed into the concrete together with the mixing water. The plasticizing effect and water reduction are higher if the admixture is added to the damp concrete after 50 to 70% of the mixing water has been added. The addition of **MasterPel 777** to dry aggregate or cement is not recommended

### SUGGESTED SPECIFICATION

The liquid integral waterproofer shall be **MasterPel 777**, polymer based, waterproofing and plasticizing admixture. The product shall comply with IS: 9103 and IS: 2645-2003 when tested at a dosage of 100 ml – 200 ml per 50 kg bag of cement. The product must be free of chlorides and shall comply with ASTM C494 Type A & D.

### COMPATIBILITY

**MasterPel 777** is compatible with most admixtures used in the production of quality concrete including normal, other mid-range and high-range water-reducing admixtures, air entrainers, accelerators, retarders, extended set-control admixtures, corrosion inhibitors, and shrinkage reducers.

**MasterPel 777** is also compatible with slag and pozzolans such as fly ash and silica fume.

### CORROSIVITY – NON CHLORIDE , NON CORROSIVE

**MasterPel 777** admixture will neither initiate nor promote corrosion of reinforcing steel embedded in concrete, prestressed concrete or concrete placed on galvanized steel floor and roof systems. Neither

calcium chloride nor any chloride-based ingredients are used in the manufacture of **MasterPel777** admixture. In all concrete application, **MasterPel 777** admixture will conform to the most stringent or minimum chloride ion limits currently suggested by construction industry standards and practices.

### WORKABILITY

**MasterPel 777** ensures that concrete remains workable in excess of 60 minutes at +25°C. Workability loss is dependent on temperature, and on the type of cement, the nature of aggregates, the method of transport and initial workability.

It is strongly recommended that concrete should be properly cured particularly in hot, windy and dry climates.

### PACKAGING

**MasterPel 777** is available in 1litre, 5litre, 20litre & 235 KG drums or bulk.

### STORAGE /SHELF LIFE

**MasterPel 777** must be stored where temperatures are between 5°C - 45°C. If product has frozen, thaw at +5°C or above and completely reconstitute using mild mechanical agitation. Do not use pressurized air for agitation. Store under cover, out of direct sunlight and protect from extremes of temperature.

Shelf life is 18 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult your local Master Builders Solutions representative.

### PRECAUTIONS

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use. Do not reuse containers for storage of consumable item. For further information refer to the material safety data sheet.

**TDS Ref. no.: MasterPel777/05/06/2021**

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**STATEMENT OF  
RESPONSIBILITY  
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