

MasterPel[®] 707

(formerly Rheomac 707)

Low dosage, liquid, integral waterproofer for concrete and mortar

DESCRIPTION

MasterPel 707 is a liquid admixture for concrete to achieve high resistance to water ingress. It is based on a blend of surface active agents and refined lignosulphonate.

RECOMMENDED USES

MasterPel 707 should be used in all structural concrete that is constantly or intermittently in contact with water such as sea walls, tunnels, basements, structural and pre-cast concrete in exposed superstructures. **MasterPel 707** can also be used as waterproofing cum plasticising admixture for cement mortars and plasters.

FEATURES AND BENEFITS

- Provides resistance to water penetration either under hydrostatic pressure or capillary absorption.
- Increased durability.
- Reduced sulphate attack.
- Reduced efflorescence.
- Improved cohesion, reduce segregation.
- Pumpability of concrete is greatly improved.
- Improved surface finish.
- Reduced shrinkage cracks in plasters
- Do not reduce compressive strengths
- Liquid – easy to use.
- Low dosage – Economical.

PERFORMANCE TEST DATA

Aspect	: Dark Brown liquid
Specific gravity	: 1.17 ± 0.02 at 25°C
pH	: ≥6
Air entrainment, %	: 2 ± 1
Chloride ion content	: <0.2%
Surface Absorption of water, BS 1881	: Reduction of 60 – 80 %

TEST CERTIFICATION/APPROVALS

- IS:2645-2003
- IS:9103-1999

- ASTM C494: Types A & D

DOSAGE

As a guide, a dosage range of 200 ml to 400 ml per 100kg of cementitious material is recommended.

Optimum dosage of **MasterPel 707** 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 BASF representative.

For additional information on **MasterPel 707** admixture or on its use in developing concrete mixes with special performance characteristics, contact your local BASF representative.

Points to remember when producing waterproof concrete:

- Ensure water / cement ratio is within 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 707** 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

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 form work, and stripping times should be monitored.

In the event of over dosage, contact your local BASF representative immediately.

APPLICATION

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MasterPel 707 is a ready-to-use liquid which is dispensed into the concrete together with the mixing water. The plasticising 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 707** to dry aggregate or cement is not recommended

SUGGESTED SPECIFICATION

The liquid integral waterproofer shall be **MasterPel 707**, lignosulphonate polymer based, waterproofing cum plasticising admixture. The product shall comply with IS: 2645-2003 when tested at a dosage of 300 ml /100 Kg bag of cement. The product must be free of chlorides and shall have specific gravity not less than 1.17 and shall comply with ASTM C494 Type A & D.

COMPATIBILITY

MasterPel 707 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 707 is also compatible with slag and pozzolans such as fly ash and silica fume.

CORROSIVITY – NON CHLORIDE , NON CORROSIVE

MasterPel 707 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 calcium chloride-based ingredients are used in the manufacture of **MasterPel 707** admixture. In all concrete application, **MasterPel 707** admixture will conform to the most stringent or minimum chloride ion limits

currently suggested by construction industry standards and practices.

WORKABILITY

MasterPel 707 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 707 is available in 1litre, 5litre, 20litre & 210 litre drums.

STORAGE /SHELF LIFE

MasterPel 707 must be stored where temperatures do not drop below +5°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 12 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 BASF 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

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The Chemical Company

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material safety data sheet. MSDS available on demand or on BASF construction chemicals web site.

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