

RHEOMAC[®] 760

Low dosage, crystalline waterproofing admixture for concrete & mortars

Description

RHEOMAC 760 is a crystalline powder admixture for concrete to achieve high resistance to water ingress. It is based on a blend of Portland cement, processed silica sand and special catalytic agents which converts hydration by-products to solid crystalline formation in the water transporting capillary tracts and hydration pores.

Uses

RHEOMAC 760 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. RHEOMAC 760 can also be used as crystalline waterproofing admixture for cement mortars and plasters. To waterproof structures such as:

- Water tanks, Reservoirs
- Building Basements & foundations
- Swimming pools and water parks
- Sewage and Water treatment plants
- Dams, canals, Tunnels, Harbours
- Retaining walls & sea defence walls
- Concrete pipes

Advantages

- Provides resistance to water penetration either under hydrostatic pressure or capillary absorption.
- Imparts integral watertightness to structures
- Protects from waterborne corrosive agents.
- Permanently active - crystalline action is reactivated by contact with water.
- Equally effective against both positive and negative water pressure or osmotic pressure.
- Reduced sulphate attack.
- Reduced efflorescence.
- Do not reduce compressive strengths
- Powder – easy to use in pre-batched renders.
- Low dosage – Economical.

Typical properties

Aspect	: Free flowing grey powder
Bulk Density	: 1.350 ± 0.2 gm/cm ³
Chloride ion content	: < 0.2%

Standards

- IS:2645-2003

Specification Clause

The crystalline powder waterproofer shall be RHEOMAC 760, active catalytic agents based. The product shall comply with IS: 2645-2003 when tested at a dosage of 500 grams per 50 Kg bag of cement. The product must be free of chlorides.

Direction for use

RHEOMAC 760 is a ready-to-use powder which is dispensed into the concrete together with the cement. Following sequence of mixing shall enable best performing waterproofing mix:

1. Batch coarse aggregates
2. Batch fine aggregates
3. Batch cement & mineral admixtures
4. Sprinkle RHEOMAC 760
5. Dry mix for 1 to 2 minutes to achieve even dry mixture.
6. Add gauging water admixed with plasticiser (if required) and continue mixing to even consistency of the mix.

In case of addition at the batching plant, use a 5 Kg dosage per cubic meter and add separately after introducing all other mix ingredients in the mixer and ensure uniform mixing.

The addition of RHEOMAC 760 to gauging water is not recommended.

Dosage

As a guide, a dosage of 1000 grams per 100kg of cementitious material is recommended. Dosage up to 2000 grams per 100 kg of cementitious mass can be used in special requirements. For addition to ready mix concrete, a dosage of 5 Kg per cubic meter is best recommended.

For addition information on RHEOMAC 760 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 less than 0.5
- Addition of good plasticiser from the RHEOBUILD or GLENIUM range is advised to achieve minimum water/cement ratio.
- Place concrete quickly and compact it well.
- Ensure complete curing with a MASTERKURE curing compound.

Compatibility

RHEOMAC 760 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.

RHEOMAC 760 is also compatible with slag and pozzolans such as fly ash and silica fume.

Corrosivity – Non Chloride, Non Corrosive

RHEOMAC 760 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 RHEOMAC 760. In all concrete application, RHEOMAC 760 will conform to the most stringent or minimum chloride ion limits currently suggested by construction industry standards and practices.

Workability

RHEOMAC 760 has little or no effect on workability of concrete. Prior site trials are advised to assess the effect, and any increase or decrease in the workability can be adjusted by adjusting the admixture dosage or amount of water in use.

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

The use of MASTERKURE 111CF, evaporation reducer to prevent quick moisture loss from the surface of the flat works such as pavements in the dry, windy and hot climates is highly recommended.

Treatment to construction joints

Treat all the construction joints and insertions using appropriate active watertight system from MASTERFLEX range. Please consult BASF representative for advice. In case if active waterproofing system is not deployed, ensure to treat the joints using MASTERSEAL 501 as dry shake on horizontal joints and with a slurry coat on vertical joints.

Packaging

RHEOMAC 760 is available in 5 Kg & 25 kg pack.

Storage and Shelf life

RHEOMAC 760 must be stored where temperatures do not drop below +5°C.

Shelf life is 6 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.

Safety precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs. 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. MSDS available on demand or on BASF construction chemicals web site.

Note

All BASF Technical Data Sheets are updated on regular basis; it is the user's responsibility, to obtain the most recent issue.

Field services where provided, does not constitute supervisory responsibility, for additional information contact your local BASF representative.

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