

MasterPozzolith[®] 225

Water reducing plasticising admixture for uniform, predictable quality concrete

DESCRIPTION

MasterPozzolith 225 is a water reducing, plasticising admixture which deflocculates and disperses the cement particles within a concrete mix. It can be used to improve workability, without the addition of extra water, or to allow reductions in the free water contents of the concrete mix. POZZOLITH 225 admixture has Normal setting characteristics and helps in producing more uniform and predictable quality concrete.

RECOMMENDED USES

- To enhance workability of concrete
- Improved cohesion, can reduce binder content
- In pre-cast concrete manufacture
- For concrete blocks and brick manufacturing
- In prestressed concrete
- To effect reductions in the water cement ratio enabling either higher strength or cement economy.
- Light weight concrete
- Pumped concrete

FEATURES AND BENEFITS

- Reduced segregation
- Significantly improves the workability therefore easy placing and finishing
- Allows water reduction while maintaining workability, there by increased strength, durability and impermeability
- Enables economies in mix designs to be achieved thereby saving cement.

PERFORMANCE TEST DATA

Aspect	:Dark brown free flowing liquid
Relative Density	: 1.20 ± 0.02 at 25°C
pH	: ≥ 6
Chloride ion content	: < 0.2%

TEST CERTIFICATION/APPROVALS

- ASTM C-494 Type A
- EN 934-2: T2
- IS 9103: 1999

DOSAGE

Optimum dosage of **MasterPozzolith 225** should be determined with trial mixes. As a guide, a dosage range of 280ml to 560ml per 100kg of cementitious material is recommended. 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 addition information on **MasterPozzolith 225** admixture or on its use in developing concrete mixes with special performance characteristics, contact your local Master Builders Solutions representative.

Effects of over dosage

A severe over-dosage of **MasterPozzolith 225** can result in the following:

- Extension of initial and final set
- Increase in air entrainment

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, consult your local Master Builders Solutions representative immediately.

APPLICATION

MasterPozzolith 225 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 **MasterPozzolith 225** to dry aggregate or cement is not recommended. Automatic dispensers are available.

When using **MasterPozzolith 225** to impart higher workability to concrete at site using ready mix trucks, it can be added to the concrete via the feed hopper at the rear of the truck. Mix before discharge for 5 minutes at 10 rpm to produce a fully homogenous mix.

COMPATIBILITY

MasterPozzolith 225 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.

MasterPozzolith® 225

MasterPozzolith 225 is also compatible with slag and pozzolans such as fly ash and silica fume.

CORROSIVITY – NON CORROSIVE

MasterPozzolith 225 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 MasterPozzolith 225 admixture. In all concrete application, MasterPozzolith 225 admixture will conform to the most stringent or minimum chloride ion limits currently suggested by construction industry standards and practices.

Rate of hardening

The temperature of the concrete mix and the ambient temperature (forms, earth, reinforcement, air, etc.) affect the hardening rate of concrete. At higher temperatures, concrete hardens more rapidly which may cause problems with placing and finishing. One of the functions of MasterPozzolith 225 admixture is to retard the set of concrete. Within the normal dosage range, it will generally extend the working and setting times of concrete containing normal portland cement approximately 1 hour to 5 hours compared to a plain concrete mix, depending on materials at site and temperatures. Trial mixes should be made with site materials & approximating the job site conditions to determine the dosage required.

WORKABILITY

MasterPozzolith 225 ensures that concrete remains workable for 30 to 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. 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.

PACKAGING

MasterPozzolith 225 is supplied in 1L, 5L, 20kg, 245kg drums or in bulk on request.

STORAGE /SHELF LIFE

MasterPozzolith 225 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 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.

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