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MasterPozzolith® R55

Set retarding admixture with water reducing/plasticising capability

DESCRIPTION

MasterPozzolith R55 is a powerful retarder and auxiliary plasticiser which disperses and deflocculates cement particles whilst delaying the hydration process, thereby retarding the initial and final set. It can be used to improve workability without the addition of extra water, or to allow reductions in the free water content in conjunction with high range water reducing agents.

RECOMMENDED USES

- For extended workability retention of high strength, low W/C ratio mixes.
- Hot weather concrete where control of initial and final set is important.
- White cement concrete
- Slip formed concrete
- Self-compacting concrete in hot weather conditions - as retarding component in the mix

FEATURES AND BENEFITS

- Increases density of concrete reducing permeability and thus increasing durability.
- Allows a reduction in free water.
- Highly effective in high cement content low water cement ratio mixes where its use enables concrete to be made more workable without loss in strength, density and durability.
- Enables controlled extension of initial set.
- The retarding action allows continuous concrete pours to be made, thus reducing the number of construction joints needed.

PERFORMANCE TEST DATA

Aspect	: Clear/pale straw free flowing liquid
Relative Density	: 1.15± 0.02 at 25^0C
pH	: ≥ 6.0at 25^0C
Chloride ion content	: < 0.2%

TEST CERTIFICATION/APPROVALS

- ASTM C 494: Type B & D
- EN 934-2:T8 & T10
- IS 9103: 1999

DOSAGE

Field trials should be conducted to determine the optimum addition rates of **MasterPozzolith R55**. As a guide to these trials, a dosage range of 100ml to 500ml per 100kg of cementitious material is recommended as a starting point. 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 addition information on **MasterPozzolith R 55** admixture or on its use in developing concrete mixes with special performance characteristics, contact your local BASF representative.

Effects of over dosage

A severe over-dosage of **MasterPozzolith R 55** can result in the followings:

- Long extension of initial and final set
- Bleed/segregation of mix

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 BASF representative immediately.

APPLICATION

MasterPozzolith R55 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 R55** to dry aggregate or cement is not recommended.

COMPATIBILITY

MasterPozzolith R55 is compatible with most admixtures used in the production of quality concrete including normal, other mid-range and high-range water-reducing admixtures, air entertainers, accelerators, retarders, extended set-control admixtures, corrosion inhibitors, and shrinkage reducers.

MasterPozzolith R55 is also compatible with slag and pozzolans such as fly ash and silica fume.

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CORROSIVITY – NON CORROSIVE

MasterPozzolith R55 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 R55** admixture. In all concrete application, **MasterPozzolith R 55**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 R55** 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 6 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.

PACKAGING

MasterPozzolith R55 is available in 20kg and 235 Kgdrums.

STORAGE /SHELF LIFE

MasterPozzolith R55 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 material safety data sheet. MSDS available on demand or on BASF construction chemicals web site.

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