

MasterRheobuild[®] 1122

High-range, retarding superplasticiser for high performance concrete mixes

DESCRIPTION

MasterRheobuild 1122 is composed of synthetic polymers specially designed to allow considerable reduction of mixing water while maintaining control on extend of set retardation.

MasterRheobuild 1122 is preferred admixture for triple blend binder system based high performance concrete (HPC) mixes or mixes containing micro silica or metakaolin.

MasterRheobuild 1122 is chloride free.

RECOMMENDED USES

- Concrete containing Silica fume/ Metakaolin
- Ready mixed concrete
- Congested/complex reinforced sections
- Pre-cast concrete production
- Long-distance transporting
- Pumped concrete
- Low water/binder ratio mixes
- Mixes requiring >20% water reductions

FEATURES AND BENEFITS

- Good dispersion even in mixes with high fines
- Reduced thermal peaks
- High workability for longer periods
- Lower pumping pressure
- Resistance to segregation even at high workability
- Extended setting with longer workability
- Reduced water content for a given workability
- Higher ultimate strengths
- Reduced permeability
- Improved durability
- Reduced shrinkage and creep
- Increased ease in finishing concrete

PERFORMANCE TEST DATA

Aspect	:Dark brown free flowing liquid
Relative Density	: 1.23 ± 0.02 at 25°C
pH	: ≥ 6
Chloride ion content	: < 0.2%

TEST CERTIFICATION/APPROVALS

- ASTM C-494 Type G
- EN 934-2: T11.1/11.2
- IS 9103

DOSAGE

Optimum dosage of **MasterRheobuild 1122** should be determined with trial mixes. As a guide, a dosage range of 600ml to 1800ml per 100kg of cementitious material is recommended. This dosage range applies for most concrete mixtures using typical concrete ingredients. However, variations in job conditions and concrete materials, such as silica fume, may require dosages outside of the recommended range. In such cases, contact your local Master Builders Solutions representative.

For addition information on **MasterRheobuild 1122** 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 **MasterRheobuild 1122** can result in the following:

- Long extension of initial and final set
- Increase in air entrainment
- 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 Master Builders Solutions representative immediately.

APPLICATION

MasterRheobuild 1122 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 **MasterRheobuild 1122** to dry aggregate or cement is not recommended.

SUGGESTED SPECIFICATION

The high-range, retarding, superplasticising admixture for concrete shall be **MasterRheobuild 1122**, a sulphonated naphthalene polymer based formulation having slump retaining capabilities. The product shall comply with IS:9103 and shall be

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of type G when tested to ASTM C-494. The product shall have average relative density of 1.23 at 25°C.

COMPATIBILITY

MasterRheobuild 1122 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.

MasterRheobuild 1122 is also compatible with slag and pozzolans such as fly ash, metakaolin and silica fume.

CORROSIVITY – NON CORROSIVE

MasterRheobuild 1122 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 **MasterRheobuild 1122** admixture. In all concrete application, **MasterRheobuild 1122** admixture will conform to the most stringent or minimum chloride ion limits currently suggested by construction industry standards and practices.

WORKABILITY

MasterRheobuild 1122 ensures that rheoplastic concrete remains workable in excess of 3 hours 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

MasterRheobuild 1122 is supplied in 275kg drums or in bulk on request.

STORAGE /SHELF LIFE

MasterRheobuild 1122 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.

TDS Ref. no.: MasterRbdx1122/02/0516

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NOTE

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