

MasterRheobuild® 1000

A superplasticising admixture to produce rheoplastic concrete

DESCRIPTION

MasterRheobuild 1000 is a superplasticising admixture that contains a sulphonated polymer. It is chloride free and is specially formulated to impart rheoplastic qualities to concrete.

Rheoplastic concrete is a fluid concrete with a slump value of at least 200mm or higher that flows easily but at the same time is free from segregation and has the same water/cement ratio as that of a no-slump concrete without additive.

MasterRheobuild 1000 has been formulated to meet the requirements of ASTM C494 for Type A & F & BS 5075 admixtures.

MasterRheobuild 1000 is compatible with all cements meeting recognised international standards.

RECOMMENDED FOR

MasterRheobuild 1000 is recommended for:

- all types of concrete mixes in which high strength and very high flowability are essential.
- precast concrete.
- cold weather concreting.

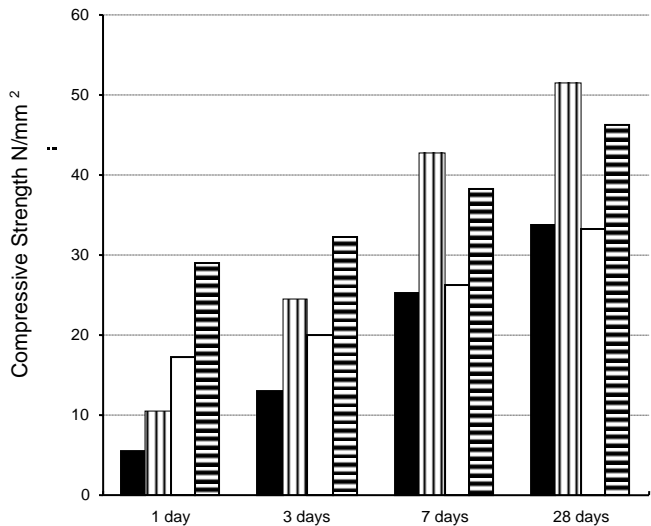
FEATURES AND BENEFITS

Very high workability	Short placement time. Saves time and labour.
High water reduction	High impermeability and strength. Improved durability.
Superior cohesion	No segregation even at high workability. Excellent concrete quality.
High early strength	Early demoulding. Shorter steam curing cycles.
Low shrinkage and creep	Better dimensional stability.

TYPICAL PERFORMANCE DATA

Compressive strength: **MasterRheobuild 1000** improves compressive strengths at all ages considerably compared to plain concrete with the same workability.

Example of the influence of **MasterRheobuild 1000** on concrete strength development



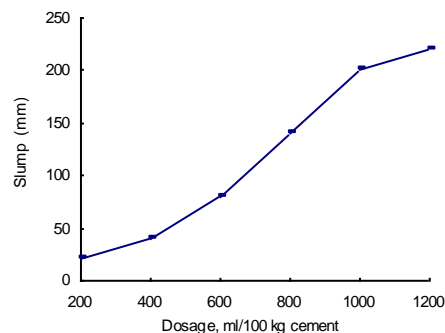
- Plain concrete cured normally
- ▨ Concrete with RHEOBUILD 1000 cured normally
- Plain concrete steam cured
- ▩ Concrete with RHEOBUILD 1000 steam cured

Maximum size of aggregates: 20 mm, Cement content: 350 kg/m³, Concrete cured for 1 hour at 20°C, heated by steam from 20°C to 60°C for over 1 hour, steam cured at 60°C for 3 hours, cooled to 20°C in 1 hour.

Typical results obtained when dosed at 1L per 100kg cement are illustrated above.

Workability: **MasterRheobuild 1000** increases the workability of concrete and the duration of workability retention considerably.

Typical influence of **MasterRheobuild 1000** on the workability of concrete is illustrated below.



*Max size of aggregates - 20 mm
Cementitious content - 350 kg/m³
Temperature 23°C.*

Slump retention: **MasterRheobuild 1000** increases the workability of concrete and the duration of workability



We create chemistry

MasterRheobuild[®] 1000

retention considerably. The duration of workability retention depends on the ambient temperature, types of cement and aggregates used, dosage rate and method of transport. Higher dosages provide longer retention of workability.

PROPERTIES

Supply form	: Liquid
Colour	: Dark brown
Specific Gravity	: 1.18 - 1.22
pH	: 7.5 - 9.5

Compatibility

MasterRheobuild 1000 is compatible with both water reducers and air entraining agents approved under SAA, SANZ & ASTM specifications but it should be dispensed separately into the concrete mix. It should only be used with water reducers after specific testing at the proposed dose rates, as certain combinations of dosages can result in extended retardation.

APPLICATION

Use **MasterRheobuild 1000** as supplied after thorough stirring, without any dilution.

Materials condition

Cement: For optimum performance, always use fresh cement, since the reactivity of cement is reduced with ageing.

Aggregates: Use of properly graded, good quality, coarse aggregates and sand helps to achieve higher impermeability and strength.

Dispensing:

The addition of **MasterRheobuild 1000** to a dry mix is not recommended.

MasterRheobuild 1000 provides optimal benefits when all materials have been batched and mixed.

DOSAGE

Dosage depends upon the mix design, the ambient conditions and the degree of water reduction and workability required. Typical dosage used is 0.7-1.2L per 100kg of cementitious materials.

Site trials are recommended to fix the dosage.

PACKAGING

MasterRheobuild 1000 is available in bulk and 205L drums.

SHELF LIFE

MasterRheobuild 1000 can be stored for 12 months if stored at temperatures above 5°C, in tightly sealed original drums. If found to be frozen, thaw it and reconstitute by stirring.

PRECAUTIONS

Health: **MasterRheobuild 1000** does not contain any hazardous substances requiring labelling.

It is safe for use with standard precautions followed in the construction industry, such as use of hand gloves, safety goggles, etc.

For detailed Health, Safety and Environmental Recommendations, please consult and follow all instructions on the product Material Safety Data Sheet.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Basf publication is based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by commonwealth or State legislation. The owner, his representative or the contractor is responsible for checking the suitability of products for their intended use.

NOTE

Field service where provided, does not constitute supervisory responsibility. Suggestions made by Basf either verbally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Basf are responsible for carrying out procedures appropriate to a specific application.

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