

MasterRheobuild® 1100 (Formerly known as Rheobuild 1100)

A superplasticising admixture to produce rheoplastic concrete

DESCRIPTION

MasterRheobuild 1100 is a chloride free, superplasticising admixture containing a synthetic polymer, 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 1100 has been formulated to meet the requirements of ASTM C494 for Type A & F and UNI 8145. **MasterRheobuild 1100** is compatible with all cements and admixtures meeting ASTM & UNI standards.

RECOMMENDED FOR

MasterRheobuild 1100 is recommended for:

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

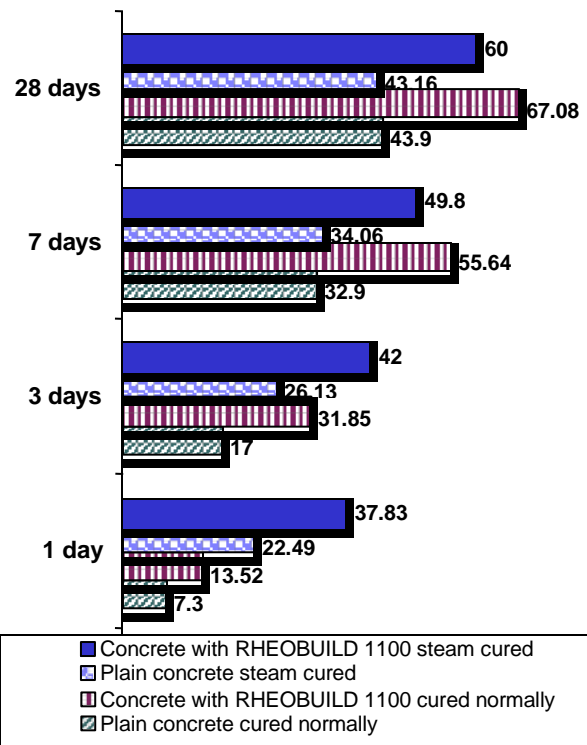
FEATURES AND BENEFITS

Very high workability	Short placement time. Saves time and labour.
High water reduction	High impermeability and strength. Improves 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 1100** improves compressive strengths at all ages significantly compared to plain concrete with the same workability.

Example of the influence of **MasterRheobuild 1100** on concrete strength development



Maximum size of aggregates : 20 mm,
 Cement content : 350kg/m³

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

Steam curing : 3 hours precuring at 20°C; steam heating to 70°C in 3 hours; steam curing for 6 hours; cooling to 20°C in 6 hours;

Workability: **MasterRheobuild 1100** greatly increases the workability of concrete. The duration of workability retention depends on the ambient temperature, types of cement, aggregates used, dosage rate and method of transport. Higher dosages provide longer retention of workability.

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PROPERTIES

Supply form	: Liquid
Colour	: Dark brown
Specific Gravity	: 1.19 - 1.23
pH	: 7.5 - 9.5

Compatibility

MasterRheobuild 1100 is compatible with both water reducers and air entraining agents approved under 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 1100** 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 1100** to a dry mix is not recommended.

MasterRheobuild 1100 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 determine the actual dosage required.

PACKAGING

MasterRheobuild 1100 is available in bulk and 205L drums.

SHELF LIFE

MasterRheobuild 1100 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 1100** 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 MBCC Group 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 MBCC Group either verbally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not MBCC Group are responsible for carrying out procedures appropriate to a specific application.

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