

# MasterRheobuild® 2000PF

Superplasticiser for high performance concrete and as a dispersing agent for MasterRoc microcements for ground injection

## DESCRIPTION

**MasterRheobuild 2000PF** is an admixture containing multifunctional, water soluble sulphonated polymers of various chemical composition, thus specifically affecting the different mineralogical components of cement.

When **MasterRheobuild 2000PF** is added to concrete the molecules of the polymer, having a negative charge, absorb onto the surface of the cement grains. This causes an electrostatic repulsion to occur amongst the cement grains making their dispersion in water easier and consequently the mix more flowable. The action of **MasterRheobuild 2000PF** occurs even when Portland cement clinker is mixed with other materials (e.g. pozzolans, fly ash, slags & microsilica) in the production of blended cements.

## TYPICAL APPLICATIONS

**MasterRheobuild 2000PF** is designed for use in the manufacture of high-quality concrete, such as:

- Pre-cast concrete tunnel linings, trackbed concrete, segment and structural members cured at normal and elevated temperatures
- Cast in-situ concrete tunnel linings
- Pre-stressed and Post tensioned concrete
- Annulus grouts for backfill grouting in tunnels
- Sprayed Concrete
- High early strength, high workability concrete
- For dispersing **MasterRoc** microcements for injection applications
- Underwater concrete
- Structural concrete where early strengths are required

## ADVANTAGES

- Provides for high early and ultimate strengths
- Allows the improvement of all hardened concrete properties such as permeability, bond to steel, dimensional stability and durability
- Chloride free (zero added chloride)

## PACKAGING

**MasterRheobuild 2000PF** is available in 208 L drums and 1000 L bulk containers. The product should be stored above 5°C. If it becomes frozen, thaw and agitate until completely reconstituted.

## TYPICAL PROPERTIES\*

Form	liquid
Colour	brown
Specific gravity @ 25°C	1.225
pH-value	6 to 10
Solubility in water	Total
Physiological effect	non-irritant

## APPLICATION GUIDELINES

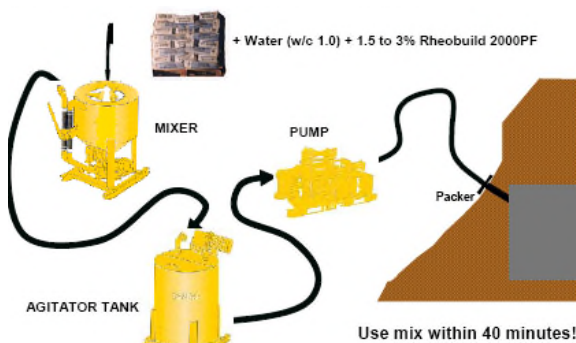
**MasterRheobuild 2000PF** is generally dosed at 1.5–2.0 L/100kg of cement. Other dosages may be recommended in special cases according to specific job requirements. Consult your local UGC representative for advice.

## CEMENT INJECTION

**MasterRheobuild 2000PF** has been found to be particularly beneficial in dispersing the **MasterRoc** microcements to allow enhanced penetration properties. In these applications **MasterRheobuild 2000PF** should be dosed at 1.5 – 2% on cement weight, with a water/cement ratio of 1. This will provide a stable mixture able to penetrate the finest groundmass cracks.

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## MasterRoc micro cement injection



### MIXING

- Fill the mixer with water.
- Add cement. Mix for 2 minutes.
- Add **MasterRheobuild 2000PF** and mix for another minute.
- Transfer to agitator.

It is very important to use an efficient mixer. Colloidal mixers give the best result.

Minimum rpm. for colloidal mixers 1500 rpm.

NB: Do not over mix. Mixing longer than recommended may cause the grout temperature to increase and set in the pump and hoses.

### COMPATIBILITY

**MasterRheobuild 2000PF** is compatible with all types of Portland, Pozzolan and Slag cements. As a general rule, **MasterRheobuild 2000PF** is compatible with all admixtures complying with ASTM and UNI standards. Other admixtures should be dispensed separately into the concrete and not combined with **MasterRheobuild 2000PF** before addition.

### STORAGE AND SHELF LIFE

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 Master Builders Solutions Technical Services Department.

### HEALTH AND SAFETY

**MasterRheobuild 2000PF** contains no hazardous substances that require labelling. For further information refer to the Material Safety Data Sheet.

\* Properties listed are based on laboratory controlled tests.

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### STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication are 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 law. The user is responsible for checking the suitability of products for their intended use.

### NOTE

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Master Builders Solutions  
 Construction Chemicals LLC  
 P.O. Box 37127, Dubai, UAE  
 Tel: +971 4 8090800  
[www.master-builders-solutions.com/en-ae](http://www.master-builders-solutions.com/en-ae)

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