

# MasterFlow<sup>®</sup> 520

## High strength, non shrink cementitious construction grout

### DESCRIPTION

**MasterFlow 520** is a ready to use product in powder form, which requires only the on-site addition of water to produce a non shrink grout of predictable performance.

### TYPICAL APPLICATIONS

**MasterFlow 520** is formulated for use at plastic or flowable consistency, and may be used with confidence for bedding, grouting and void filling operations including pile cap reprofiling and encapsulation.

### ADVANTAGES

- Non shrink
- Adjustable consistency
- Proven and predictable performance
- High bond strength to steel and concrete
- Early strength development even at flowable consistency
- Impermeable

### PACKAGING

**MasterFlow 520** is supplied in 25 kg bags.

### TYPICAL PROPERTIES\*

#### When tested at w/p 0.18

Water addition	4.5 L / 25 kg
Compressive Strength BS 1881 Part 116	Flowable
1 day	25 N/mm <sup>2</sup>
3 day	40 N/mm <sup>2</sup>
7 day	50 N/mm <sup>2</sup>
28 day	60 N/mm <sup>2</sup>
Flexural Strength BS 4551: 1980 @ 28 days	8 N/mm <sup>2</sup>
Water penetration (BS EN 12390 Part 8 :2000)	<10 mm

### APPLICATION GUIDELINES

#### SURFACE PREPARATION

The surface onto which the grout is to be applied should be scabbled to remove laitance and expose aggregate. Do not use bush hammers or similar preparation equipment that can crush the aggregate but leave it in place. The surface must be free of oil, dust, dirt, paint, curing compounds or other contaminants that could impair adhesion. Soak area to be grouted to minimise absorption. Surfaces should be damp but free of standing water. Particular attention should be paid to bolt holes to ensure that these are water-free. Use oil free compressed air to blow out bolt holes and pockets as necessary.

Base plates, bolts, etc. must be clean and free of oil, grease and paint. Set and align equipment. If shims are to be removed after the grout has set, then lightly grease them for easy removal. Ensure formwork is secure and watertight to prevent movement and leaking during the placing and curing of the grout.

#### MIXING

Damp down the inside of the grout mixer with water prior to mixing the initial batch of **MasterFlow 520**. Ensure the mixer is damp but free of standing water. Add the pre-measured quantity of water. Slowly add the **MasterFlow 520**, mixing continuously. Mix for 3-5 minutes until a smooth, uniform, lump free consistency is achieved.

#### PLACING / APPLICATION

Place immediately after mixing, into the prepared area in such a manner that the grout has the shortest distance to flow. Pour the grout continuously maintaining a constant hydrostatic head wherever possible.

**MasterFlow** grouts are suitable for use with most types of pumping equipment.

Immediately after **MasterFlow 520** grout is placed, cover all exposed grout with clean wet hessian and keep moist until grout surface is

# MasterFlow® 520

ready to be finished, or until final set. Alternatively, consider the use of a curing membrane from the **MasterKure** range.

## COVERAGE / YIELD

13 L / 25 kg bag at flowable consistency.

### Note:

For precision grouting of heavy machinery use **MasterFlow 928** or **MasterFlow 980**.

For additional information on **MasterFlow 520** grout or other non-shrink grouting materials, contact your Master Builders Solutions representative.

## STORAGE AND SHELF LIFE

Store out of direct sunlight, clear of the ground on pallets protected from rainfall. Avoid excessive compaction.

Shelf life is 12 months when stored in ideal conditions in original sealed bags

## HEALTH AND SAFETY

As with other products containing Portland cement, the cementitious material in **MasterFlow 520** grout may cause irritation. In case of contact with eyes, immediately flush with plenty of water for at least 15 minutes. Call a physician. In case of contact with skin, wash skin thoroughly.

## PRECAUTIONS

The temperature of both the grout and elements coming into contact with the grout should be in the range of +5°C to +35°C. Do not use water in an amount or at a temperature that will produce a consistency more than flowable or cause mixed grout to bleed or segregate.

**MasterFlow 520** should be laid at a minimum thickness of 10mm and to a maximum depth of 80mm.

For applications above 80mm consider the use of **MasterFlow 980**. For applications below 10mm consult Master Builders Solutions Technical Services Department for advice.

**DO NOT OVERWORK AND AVOID USING MECHANICAL VIBRATION.**

**UNDER NO CIRCUMSTANCES SHOULD MasterFlow 520 BE RETEMPERED BY THE LATER ADDITION OF WATER.**

It is essential that a mechanically powered grout mixer is used to obtain the optimum properties. A slow speed drill and mixing paddle may be used for single bag batches only.

## QUALITY AND CARE

All products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

Request and refer to recommended installation procedures for **MasterFlow** grouts prior to use

\* 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

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

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