

MASTERFLOW[®] 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.

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 25kg bags.

*Typical properties when tested at w/p 0.18

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

Application procedure

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:

Place immediately after mixing, into the prepared area in such a manner that the grout has the



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

Storage

Store out of direct sunlight, clear of the ground on pallets protected from rainfall. Avoid excessive compaction. Storage life is approximately 12 months when stored in ideal conditions in original sealed bags.

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 T. For applications below 10mm consult BASF 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.

Yield / consumption

13 litres / 25kg bag at flowable consistency.

Note:

For precision grouting of heavy machinery use MASTERFLOW[®] 928 T or in critical operating conditions MASTERFLOW[®] 885.

When a very rapid set is required in areas subject to chemical spillage or contamination, use epoxy grouts MASTERFLOW[®] 400 / 410.

For additional information on MASTERFLOW[®] 520 grout or other non-shrink grouting materials, contact your BASF representative.

Safety precautions

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.



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Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local BASF representative.

BASF reserves the right to have the true cause of any difficulty determined by accepted test methods.

Quality and care

All products originating from BASF's 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, ISO 14001 and OHSAS 18001.

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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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As all BASF technical datasheets are updated on a regular basis it is the user's responsibility to obtain the most recent issue.

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