

MasterFlow[®] 523

High strength, non shrink cementitious construction grout

DESCRIPTION

MasterFlow 523 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, when grouting in restrained or unrestrained applications.

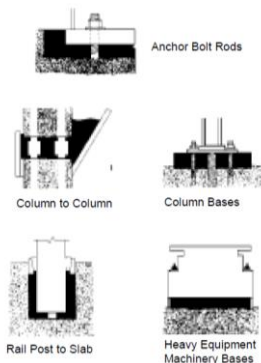
APPLICATIONS

MasterFlow 523 is formulated for use at plastic or flowable consistency, and may be used with confidence for under plate and bedding grout applications plus unrestrained void filling applications with the addition of up to 50% aggregate(10mm max) by weight without significant change in performance properties.

ADVANTAGES

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

TYPICAL PROPERTIES:



PACKAGING

MasterFlow 523 is supplied in 25kg moisture resistant bags.

TYPICAL PROPERTIES*

Water addition	Flowable Plastic	3.25 L/ 25kg 2.5 L/ 25kg
Density	Flowable Plastic	2230 kg/m ³ 2350 kg/m ³
Free expansion	2 to 4%	
Restrained expansion	0 to 4%	
Compressive Strength (N/mm ²) – ASTM C109/109M		
	Flowable	Plastic
1 day	>25	>40
3 days	>35	>50
7 days	>45	>60
28 days	>60	>70
Flexural Strength (N/mm ²) – ASTM C348-08		
28 days	>8	>10
Tensile Strength (N/mm ²) - BS 6319 PART 7		
28 days	>3	>3.5

*Properties listed are based on laboratory controlled tests.

STANDARDS

MasterFlow 523 complies with and exceeds the requirements of the following standards:

ASTM C 1107 – 909	ASTM C 827- 78,
ASTM C 878 – 87	CRD C 81 – 74
CRD C 621 – 89	BS 6319 – 83

MasterFlow[®] 523

High strength, non shrink cementitious construction grout

PREPARATION

The surface onto which the grout is to be applied should be scraped to remove laitance and expose aggregate. 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 minimize 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 grout.

MIXING

Damp down the inside of the grout mixer with water prior to mixing initial batch of **MasterFlow 523**. Ensure the mixer is damp but free of standing water. Add the pre-measured quantity of water.

Slowly add the **MasterFlow 523**, mixing continuously. Mix for five 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 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 523** 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

MasterFlow 523 should be stored as for cement in cool dry conditions. Storage life is 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. Excessive water addition will result in segregation and bleeding of the mixed grout. **MasterFlow 523** should be applied at a minimum thickness of 25mm and up to a depth of 125mm.

For applications above and below the mentioned thickness range consult Master Builders Solutions's technical department for advice.

DO NOT OVERWORK AND AVOID USING MECHANICAL VIBRATION. UNDER NO CIRCUMSTANCES SHOULD MASTERFLOW 523 BE RETEMPERED BY THE LATER ADDITION OF WATER.

Mechanically powered grout mixers produce the best results, single bag mixes can be carried out using a slow speed drill and paddle.

YIELD / CONSUMPTION

12.9 ltr/25kg bag at flowable consistency.
78 x 25kg bags/ m³.

Note: For precision grouting of heavy machinery use **MasterFlow 928** or in critical operating conditions **MasterFlow 885**. When a very rapid set is required in areas subject to chemical spillage or contamination, use epoxy resin grouts **MasterFlow 400/410**. For additional information on **MasterFlow 523** grout or other non-shrink grouting materials, contact your Master Builders Solutions representative.

MasterFlow[®] 523

High strength, non shrink cementitious construction grout

NOTE

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

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

QUALITY AND CARE

All Master Builders Solutions Products are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health and safety standards of ISO 9001 and Master Builders Solutions ESHQ recommendations.

* Properties listed are based on laboratory controlled tests.

® = Registered trademark of the MBCC-Group in many countries

CONTACT

Should you require any further information, please do not hesitate to contact us:

www.master-builders-solutions.com/en-sa
enquirycc.saudi@mbcc-group.com
M: +966 13 853 8600

Master Builders Solutions Saudi Arabia for
Manufacturing LLC.
P.O. Box 1884, Al Khobar, KSA

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.

Disclaimer:

In view of widely varying site conditions and fields of application of our products, this technical data sheet is meant to provide general application guidelines only. This information is based on our present knowledge and experience. The customer is not released from the obligation to conduct careful testing of suitability and possible application for the intended use. The customer is obliged to contact the technical help-line for fields of application not expressly stated in the technical data sheet under "Fields of Application". Use of the product beyond the fields of application as stated in the technical data sheet without previous consultation with Master Builders Solutions and possible resulting damages are in the sole responsibility of the customer.

All descriptions, drawings, photographs, data, ratios, weights i.e. stated herein can be changed without advance notice and do not represent the condition of the product as stipulated by contract. It is the sole responsibility of the recipient of our products to observe possible proprietary rights as well as existing laws and provisions. The reference of trade names of other companies is no recommendation and does not exclude the use of products of similar type. Our information only describes the quality of our products and services and is no warranty. Liability is accepted for incomplete or incorrect particulars in our data sheets only in the event of intent or gross negligence, without prejudice to claims under product liability laws.