

MasterFlow[®] 559

Versatile high strength, non shrink cementitious construction grout

DESCRIPTION

MasterFlow 559 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.

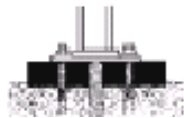
APPLICATIONS

MasterFlow 559 is formulated for use at flowable or plastic consistency. It may be used with confidence for bedding, grouting and void filling operations with clearance of greater than 25mm, such as but not limited to:

- Void filling between old and new concrete.
- Anchor bolts.
- Floor patching.
- Foundation for machinery.
- Cavities



Anchor Bolts



Rail/ Post to Slab



Heavy Equipment Machinery Base

Key

■ MasterFlow 559

ADVANTAGES

- Double expansion
- Adjustable consistency.
- Micro silica enhanced for strength.
- High bond strength to steel and concrete.
- High early strength development even at flowable consistency.
- Impermeable.

PACKAGING

MasterFlow 559 is supplied in 25kg bags.

Standards

ASTM C-109; ASTM C-940
Complies with ASTM C-1107

TYPICAL PROPERTIES

Water addition	Flowable	3.7 L / 25 kg
	Plastic	3.0 L / 25 kg
Density	Flowable	2230 kg / m³
	Plastic	2350 kg / m³
Free expansion		2 to 4 %
Restrained expansion		0 to 0.4 %
Compressive Strength (N/mm²)		
	Flowable	Plastic
1 Day	45.00	50.00
3 Days	56.00	58.00
7 Days	60.00	65.00
28 Days	66.00	74.00
Flexural Strength (N/mm²)		
1 Day	9.10	9.20
3 Days	10.20	10.90
7 Days	10.90	13.20
28 Days	13.50	15.10
Tensile Strength (N/mm²)		
1 Day	2.10	1.90
3 Days	2.70	2.70
7 Days	2.45	3.0
28 Days	3.10	3.15

APPLICATION PROCEDURE

SURFACE PREPARATION:

All surfaces in contact with the material must be sound, dense and clean. All laitance and any unsound material should be removed by light sweep blast, light scabbling or vigorous wire brushing (Note: heavy scabbling, creating deep troughs or high peaks is unsuitable). Surfaces must be pre-wetted to thoroughly dampen the concrete, but any free surface water must be removed before **MasterFlow 559** is placed.

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

MasterFlow[®] 559

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 559**. Ensure the mixer is damp but free of standing water. Add the pre-measured quantity of water. Slowly add the **MasterFlow 559**, mixing continuously. Mix for 3-5 minutes until a smooth, uniform, lump free consistency is achieved. A slow speed drill with heavy duty paddle can be employed for 1 or 2 bag mixes

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 559** 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 recommended or cause mixed grout to bleed or segregate.

MasterFlow 559 was formulated for thickness above 80mm, however it is suitable for use at a minimum thickness of 25mm.

For applications below 25mm consult Saudi BASF Technical Services Department for advice.

DO NOT OVERWORK AND AVOID USING MECHANICAL VIBRATION.

UNDER NO CIRCUMSTANCES SHOULD MasterFlow 559 BE RETEMPERED BY THE LATER ADDITION OF WATER.

Use a mechanically powered grout mixer for optimum properties. A slow speed drill and mixing paddle may be used for 1 or 2 bag mixes. Do not mix less than 1 bag or attempt to mix by hand.

YIELD / CONSUMPTION

Consistency	MasterFlow 559	Water	Yield
Flowable	84 x 25 Kg bags	197 L	1m ³
Plastic	87 x 25 Kg bags	188 L	

NOTE:

For precision grouting of heavy machinery use **MasterFlow 559** 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/MasterSeal 915**.

For additional information on **MasterFlow 559** grout or other non-shrink grouting materials, contact your BASF representative.

MasterFlow[®] 559

SAFETY PRECAUTIONS

As with other products containing Portland cement, the cementitious material in **MasterFlow 559** 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.

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 BASF 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 BASF ESHQ recommendations.

REQUEST AND REFER TO RECOMMENDED
INSTALLATION PROCEDURES FOR
MASTERFLOW[®] GROUTS PRIOR TO USE

* Properties listed are based on laboratory controlled tests.

® = Registered trademark of the BASF-Group in many countries.

BASF_Saudi_07/2009-rev_04-2017

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this BASF 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 BASF either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not BASF, are responsible for carrying out procedures appropriate to a specific application.

Saudi BASF for Building Materials Co. Ltd.

P.O. Box 1884, Al Khobar, KSA

Tel: +966 13 8538600, Fax: +966 13 8328671

www.master-builders-solutions.sa

