

Masterflow 710 (formerly known as Ferroflow 939)

Iron fortified shrinkage compensated grout

Description

Masterflow 710 is a ready to use blend of carefully selected, graded siliceous and iron aggregates with special shrinkage compensating agents, Portland cement, for easy placement of pourable to exceptionally fluid grout by the addition of potable water.

Conformance

Masterflow 710 has been formulated to meet the requirements of the U.S Corps of Engineers Specification CRD-C621-82A for fluid grout and ASTM C1107-91.

Typical Uses

Masterflow 710 when mixed does not segregate or shrink and maintains critical contact to the underside of base plates of precision aligned dynamic equipment, thus ensuring proper stress transfer to supportive concrete. Its shrinkage compensation is achieved through the chemical pre-stress system of expansive cements:

- Structural Columns
- Machine bases
- Holding down bolts
- Dowel and starter bars
- Bridge bearings
- Underpinning and repairs
- Filling cavities in concrete or steel sections

Special Features

The iron aggregate particles in Masterflow 710 reinforce the hardened grout providing exceptional flexural strengths and resistance to repetitive or dynamic loads, induced by compressors, milling equipment, winders, motors, turbines or similar equipment:-

- Excellent initial and retained fluidity.
- Cohesion and suspension of aggregates.
- Excellent strength development.
- Corrosion inhibition (non-chloride)

Packaging

Masterflow 710 is available in 25 kg polylined bags.

Properties

Appearance	Grey powder
Fresh Wet Density	2750 kg/m ³
Yield	78-84 bags/m ³
Compressive Strength	65MPa @ 28 days
Flexural Strength	10MPa @ 7days
Plastic Expansion	0.5%
Hardened Expansion	0.05%

Limitations

Do not grout on a 5°C and falling temperature scale. Avoid excessive heat (35-40°C) especially where grout is to be placed in 100mm or more lifts. Cooling of mix water or covering of steel with wetted hessian may be necessary to reduce heat. The maximum lift should not exceed 150mm unless precautions are taken. If in doubt contact BASF Technical support for further information and assistance

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Water Addition

Water added at the following rates per 25kg bag of Masterflow 710 will give the consistency indicated:-

Dry Pack	2.25l
Plastic	2.5 to 3l
Flowable	3.5 to 4l
Fluid	4.5 to 5l

Working Time

Although Masterflow 710 maintains excellent workability it is good practice to place the grout immediately mixing is complete.

Mixing

Machine mixing is preferred but whether machine or hand mixed in a wheelbarrow it is best to place about $\frac{1}{2}$ to $\frac{2}{3}$ of the mix water in the container and add the grout powder to this. This avoids lumping.

Preparation

All areas to be grouted must be free of grease or dirt and concrete must be well soaked for at least five hours before placement of grout to eliminate "suck".

Storage

Store under cover, out of direct sunlight and protect from extremes of temperatures.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult BASF Construction Chemicals SA's Technical Services Department.

Safety precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use.

Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local BASF Construction Chemicals SA representative. BASF Construction Chemicals SA reserves the right to have the true cause of any difficulty determined by accepted test methods.

Quality and care

All products originating from BASF Construction Chemicals' SA facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001:2000.

Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labour involved in the application are beyond our control.

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

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