

MasterFlow[®] 880

Cementitious high strength, non-shrink, iron reinforced precision grout

DESCRIPTION

MasterFlow 880 is a non-shrink, iron aggregate precision grout with high early and ultimate strengths. It is formulated to provide extended working time even at high ambient temperatures and is typically placed at a flowable consistency at thicknesses between 10mm and 150mm.

RECOMMENDED USES

MasterFlow 880 is used in the power and heavy industry sectors for all precision, non-shrink grouting applications particularly those requiring maximum dynamic load bearing and impact resistance such as:

- Turbines, generators, pumps and centrifugal compressors;
- Crane rails, ball mills, crushers;
- Rolling, stamping, drawing and finishing mills for the steel and aluminium industries;
- Critical equipment baseplates, soleplates & columns;
- Anchor bolts and bars;
- Installations requiring high early and ultimate compressive strengths.

FEATURES AND BENEFITS

- **Iron reinforced** – Contains treated inert iron aggregate as internal reinforcement – Provides improved resistance to heavy impact, and repetitive loading as well as rotational torque.
- **High early strength** – ensures rapid commissioning of new equipment and structures.
- **High ultimate strength** – ensures permanence of the installation under static and dynamic loads.
- **Good flow characteristics** – easy to grout intricate spaces normally inaccessible by conventional grouting techniques.
- **Extended working time** – facilitates grouting of large or difficult placements under a variety of conditions
- **Dense, non-shrink grout** – hardens free of bleeding, segregation and settlement shrinkage, to provide the maximum effective bearing area for load transfer
- **Easy to use** – pumpable for large installations and cementitious based for ease of cleaning equipment
- **Compliance with codes** – Meets the performance requirements of ASTM 1107 when tested in accordance with ASTM C109 and ASTM C1090

PROPERTIES

Compressive Strength (MPa)

Age	
1 day	> 40
3 days	> 60
7 days	> 75
28 days	> 90

Test Method: ASTM C109

Flexural Strength (MPa)

Age	
28 days	> 7

Test method ASTM C348

Splitting Tensile Strength (MPa)

Age	
28 days	> 4

Test Method: ASTM C496

Height Change (%)

Age	
28 days	0.0 - 0.3

Test Method: ASTM C1090

Flow (cm)

Age	
Initial	35-55

Test Method: AS1478.2 Appendix D

Water Demand – Actual water demand will depend on consistency required and temperature (both ambient and grout). Do not exceed the maximum water, as it will cause grout to bleed or segregate.

As a guide, the below table indicates the quantity of water required to mix a 25kg bag of **MasterFlow 880** to various consistencies.

Temperature	Consistency	
20°C	Flowable	Plastic
	3.75 Lt	3.25 Lt

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The performance data is typical and based upon controlled laboratory conditions. Actual performance on the job site may vary from these values based on actual site conditions. Field and laboratory tests should be conducted on the basis of the desired placing consistency rather than strictly on indicated water demand. If the project requires strength tests be made on site do not use cylinder moulds.

ESTIMATING DATA

One 25 kg bag of **MasterFlow 880** mixed according to directions will yield the following grouts at 20°C:
Flowable – 11.5 litres, approx. Plastic – 11.0 litres, approx

APPLICATION

For application directions on preparation, forming, mixing, placing and curing **MasterFlow 880**, as well as the precautions to take in hot and cold weather, refer

to the "Application Guide for Masterflow[®] Cementitious Precision Grouts" available from your local Master Builders Solutions representative.

For thick sections and large volume grout installation please contact the local Master Builders Solutions Technical Services Department for advice.

PACKAGING

MasterFlow 880 is packaged in 25kg bags.

SHELF LIFE

MasterFlow 880 has a shelf life of approximately 12 months when stored in a cool dry environment.

PRECAUTIONS

For detailed Health, Safety and Environmental Recommendations, please consult and follow all instructions on the product Material Safety Data Sheet (MSDS) from our office or our website.

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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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