

# MasterFlow® 871 (Interim)

Cementitious high strength non-shrink deep pour precision grout

## DESCRIPTION

**MasterFlow 871** is a non-shrink, natural aggregate precision grout with excellent high early and ultimate strengths. It is specially formulated to provide extended working time even at high ambient temperatures when mixed and placed at any flowable consistency. **MasterFlow 871** is normally placed at a flowable consistency to completely fill voids between 35mm and 500mm.

## RECOMMENDED USES

**MasterFlow 871** is used for all precision, non-shrink grouting applications with clearances of 35mm or more, including:

- critical equipment baseplates, soleplates & columns up to 500 mm thick;
- precast wall panels, beams, columns, structural building members and curtain walls;
- patching poured in place concrete structures
- underpinning;
- concrete repair applications where a form and pour material is required;
- applications requiring high early compressive strengths and high ultimate compressive strengths.

## FEATURES AND BENEFITS

- High early strength** – Ensures rapid commissioning of new equipment and structures.
- High ultimate strength** – Ensures permanence of the installation under static and moderate repetitive loads.
- Flowable long life grout** – Easy to grout intricate spaces normally inaccessible by conventional grouting technique.
- Extended working time** – Facilitates grouting of large or difficult placements in a single pour, often without the use of a pump.
- Dense, non-shrink grout** – Hardens free of bleeding, settlement and drying shrinkage, ensuring tight contact with all grouted surfaces.
- Easy to use** – Requires no special mixing equipment, it can be mixed in a standard grout pump 6mm particle capability or in a pail using a grout stirrer.
- No added chloride** – Does not add to chloride load of structure
- Compliance with codes** – Meets the non-shrink requirements of ASTM C1090 and CRD-C 621, Corps of Engineers Specification for Non Shrink Grout; provides complete non

shrink performance when tested in accordance with simulated Bedplate Technique; tested to the requirements of AS1478.2 *“Methods of sampling and testing admixtures for concrete, mortar and grout”*.

## PROPERTIES

Typical performance properties indicated below, for grout mixed at a flowable consistency.

### Compressive Strength (MPa)

Age	23+/-2°C
1 day	30
3 days	50
7 days	60
28 days	80

Test Method: AS1478.2 Appendix A

### Volume Change

Age	23+/-2°C
1 day	Positive
3 days	Positive
7 days	Positive
28 days	Positive

Test Method: AS 2350-13 (modified)

### Flow Retention

Age	23+/-2°C
Initial	100%
After 30 minutes	90%
After 1 hour	75%

AS 1478.2 - 2005

### Bleeding, Plastic Density and Setting Time

Temp.	Bleeding (%)	Plastic Density (kg/m³)	Setting Time	
			Initial (hours)	Final (hours)
23+/-2°C	0	2300	3	4

Test Method: Bleeding AS1012.6; Plastic density AS1012.5; Setting time AS1012.18

**Water Demand** – Actual water demand will depend on consistency required and temperature (both ambient and grout). As a guide, the following table indicates the approximate quantity of water required to mix

**MasterFlow 871** to a flowable consistency.

Temperature	Flowable <sup>1</sup>
23+/-2°C	2.3 Litre per 20Kg 115 litres per 1000Kg

40- 55cm flow trough ASTM 1478.2

The performance data is typical and based upon controlled laboratory conditions. Actual performance on



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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

**MasterFlow 871** mixed according to directions to a flowable consistency will yield the following at 20°C:

1000Kg Bag     485 Litre approx.  
20Kg Bag       9.7 Litre approx.

## APPLICATION

For information about application, please obtain a copy of the BASF "*Application Guide for*

**MasterFlow Cementitious Precision Grouts**" from your local representative. For 'dry pack' (damp pack) application, refer to **MasterFlow 700**.

## PACKAGING

**MasterFlow 871** is packaged in 20 kg bags and 1000Kg bulk bags.

## SHELF LIFE

**MasterFlow 871** 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 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.

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