

Revision 1. February 2020

PRODUCT DATA SHEET

Technical Mortar Series - Grout

GENERAL DESCRIPTION

QuickMix® Non-Shrink Grout (218) is a high-strength pre-packed non-shrink cementitious pumpable grout consisting of Portland cement, selected graded silica sand, mineral accelerator, and other high performance additives. All additives used are chloride-and-alkali-free. It is specially designed for application on general repairs to concrete structure.



TYPICAL USES

- Repair of spalling concrete and honeycombs
- Machinery foundations
- Column to column in precast construction
- Anchor bolt and bars
- Cavities and voids
- Rail beds or post to slabs

ADVANTAGES

- Premixed to ensure good and consistent quality with non-shrink properties.
- High early strength development, ≥ 25 N/mm² (1 day).
- High ultimate strength with good impact resistant, ≥ 60 N/mm² (28 days).
- Easy to mix to different consistency and apply (i.e. flowable, pourable, stiff).
- Non-corrosive and chloride free.

PRODUCT INFORMATION

Appearance	Grey powder
Binder	Portland cement
Filler	Graded silica sands
Auxiliaries	Additives to enhance flowability, extended working time and reduce shrinkage
Coverage	Flowable: Approx. 0.014m³ mortar per bag; or Approx. 72 bags per 1 m³ mortar Pourable: Approx. 0.013m³ mortar per bag; or Approx. 76 bags per 1m³ mortar
Packaging	25 kg bag
Shelf Life	6 months from date of manufacture





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TECHNICAL INFORMATION

Consistency	<u>Flowable</u>	<u>Pourable</u>	Stiff	
Water Powder Ratio	0.19 – 0.21	0.17 – 0.18	0.14 – 0.16	
Compressive Strength 1 day 7 days 28 days	≥ 25 N/mm ² ≥ 45 N/mm ² ≥ 60 N/mm ²	≥ 30 N/mm ² ≥ 50 N/mm ² ≥ 65 N/mm ²		
Tensile Strength 7 days 28 days	~ 7.0 N/mm² ~ 7.5 N/mm²	~ 7.5 N/mm² ~ 8.0 N/mm²		
Flow consistency (ASTM C939) (Flow Cone)	20 - 45secs ~ 300mm	> 60secs ~250mm		
Density	Approximately 2000 kg/m³ (depending on consistency)			
Expansion (ASTM C940)	< 0.4% at 3 days and 28 days			
Shrinkage (ASTM C940)	0% at 28 days			
Setting Time (ASTM C953)	Initial ≥ 1hour; Final ≤ 10hours			
Pot Life	Approximately 20 minutes			

Note: The values given are average figures achieved in laboratories conditions at 20°C.

APPLICATION GUIDE

SURFACE PREPARATION

- Remove all deteriorated concrete, dirt, oil, grease, and other bond inhibiting materials from surface.
- Reinforcement bar should be blasted to bare metal and treated with rust inhibitor.
- Flood the grouting zone with clean water, remove stagnant water including those trapped in pockets or bolt holes.
- Substrate should be saturated-surface dry and free of surplus water prior to application.
- All formworks encasing grouting zone must be sturdily constructed and to allow for sufficient hydrostatic points.
- All edges and joints must be sealed to watertight.
- In pressure grouting, the installation of input / stop-valve must be firm and strategically positioned.



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MIXING

- Place about 70-80% of premeasured clean water into a clean container with below mix ratio guide, gradually add QuickMix® Non-Shrink Grout (218) powder into it while mixing. Add the remaining water and mix continuously for 3-5 minutes to achieve homogeneous lump-free mixture.
- · Avoid entrapping air during mixing.
- For small patches, use an electrical hand-held drill mixer. For big patches, use drum type mechanical mixer.

Mix Ratio Guide:

- To obtain flowable consistency, mix one bag (25kg) of **QuickMix® Non-Shrink Grout (218)** with approximately 4.75 5.25 liters of clean water.
- To obtain pourable consistency, mix one bag (25kg) of **QuickMix® Non-Shrink Grout (218)** with approximately 4.25 4.50 liters of clean water.
- To obtain stiff consistency, mix one bag (25kg) of **QuickMix® Non-Shrink Grout (218)** with approximately 3.50 4.00 liters of clean water.

APPLICATION

- For gravity fed applications, place the mixed **QuickMix® Non-Shrink Grout (218)** mortar from one side or corner in one continuous pour.
- When grouting large areas, pour from the middle through a pipe or funnel.
- For machine installations, fill he anchor bolt pockets, followed by the underside of the machine.
- For pressure grouting, hand-grout pump or electrical pump can be utilized, depending on the volume and size of the
 grouting area. Once the pressure has been reached, close the stop-valve and release the pressure gauge.

CURING

- Allow 7 days for curing, before striking off the formworks.
- · Protect newly applied mortar from rain.
- Open areas must be protected against evaporation by using polyethylene sheet or damp burlap.

CLEANING

Clean tools with water immediately after use. Cured materials can only be removed mechanically.

PACKAGING

QuickMix® Non-Shrink Grout (218) is packed in 25kg bags.



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STORAGE & SHELF LIFE

QuickMix® Non-Shrink Grout (218) in its original packing, when stored in a sheltered dry place that is free from
excessive moisture, shall have a shelf life of 6 months from its date of manufacture. Customers is encouraged to
use the product promptly to avoid possibility of storage related contamination.

HEALTH & SAFETY

QuickMix® Non-Shrink Grout (218) is non-hazardous. However, Lafarge Drymix recommends that appropriate safety equipment to be worn by workers when handling this product, including dust masks, rubber gloves, full eye protection and boots where necessary. In case of contact with eyes, wash with plenty of water. If irritation persists, seek immediate medical attention. For further information, refer to the Safety Data Sheet.

Disclaimer: The information contained herein together with the suggestions for use and application is, to the best of our knowledge based on laboratory tests and practical experience, accurate and reliable as of the time of publication. As we are unable to anticipate and control many conditions under which our products may be used, no responsibility can be accepted by us for any loss or damaged caused by the person acting or refraining from action as a results of this information. It is the user's responsibility to satisfy himself / herself as to the suitability and completeness of information provided here for their intended use. We reserve the right to alter the given data without prior notice.



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