

DRY SILO MORTAR

INFORMATION SHEET



WWW.FPMCCANN.CO.UK

Version 1.0

APPLICATIONS

- BRICK, BLOCK, STONE, PAVING SLAB LAYING
- BEDDING
- REPOINTING
- GENERAL MASONRY REPAIRS

THE BENEFITS

1. QUALITY ASSURED

FP McCann's mortar silos produce a consistent mix that delivers a constant high quality finish and conforms to BS EN 998-2 standard mortar strength.

2. COST-EFFECTIVE

- Reduced long-term costs - Potential for zero waste, fewer deliveries and less manpower required.
- Less space required on-site in comparison to traditional mixing methods with covered cement and fine aggregate storage.

3. INCREASED PRODUCTIVITY

- Ready-made mortar means less time mixing and more time applying.
- No need to retard mix.

4. CONSISTENT STRENGTH AND WORKABILITY

Computer-controlled mixing provides a constant reliable consistency.

5. ENVIRONMENTALLY FRIENDLY

- The large silo capacity means fewer deliveries and less environmental impact.
- Less noise pollution compared to using traditional mixers.
- Zero packaging on-site.
- Reduced use of plastic packaging from manufacturing to point of use.
- No risk of leakage of liquid mortar mix as opposed to traditional mixing methods. Eliminates risks of storing chemical admixtures on-site.

FP McCann's silo mortar provides an efficient mortar solution to a wide range of external and internal works, dependent on structural requirements.

The dry mortar mix consists of cement, sand and admixtures and is delivered in bulk tankers to site and stored in our portable, sealed silo that has a built-in automated mixing system. Once water and power has been connected to the mixing unit on-site, the dry mortar is mixed with water at the push of a button, resulting in a consistent high-quality mix that is easy to use.

Product Information	
Form	Granular
Colours	Grey
Maximum Aggregate Size	3mm
Safety Information	Irritant – read Health & Safety information prior to use
Cleaning	Clean equipment using water or, if the product has set, using mechanical means, as necessary
Shelf Life	Up to 3 months in site silos

Technical Information		
Proportions	Equivalent Strength Class	M4
	Typical Compressive Strength	4 MPa
	Prescribed Proportions by volume	1:5 – 6 Cement: Sand
	Prescribed Proportions by weight	Portland Cement 13.5% Aggregates 86.5% Air Entraining Agent 0.025%
Working Time	Typically remains usable for up to 4 hours, depending on conditions	

For further information on our dry silo solutions, contact our sales team at Knockloughrim on **028 7964 2558** or Email sales@fpmccann.co.uk

DRY SILO MORTAR



TECHNICAL DATA

CARE OF EQUIPMENT

The Dry Mixing Silo should be treated with care at all times, since any damage to the switches or apparatus on the mixer or control panel could interfere with the normal operation of the system, particularly when site vehicles are used to load and transport the mortar. Any damage or modifications made to the silo or associated equipment must be reported to FP McCann immediately. The customer will be held liable for all damage which results from the misuse of the silo. FP McCann will provide relevant training for customers and staff using silos. Customers are responsible for ensuring that only trained operators use FP McCann Dry Mixing Silos and that the correct procedures covered in the training sessions are followed by operators:

When the Dry Mixing Silo is correctly set up on site, FP McCann will test it to make sure that it is operating correctly. No attempt whatsoever should be made to use the Dry Mixing Silo until it has been fully commissioned for use by the relevant FP McCann personnel. Furthermore, new users should not use the system until they have been fully trained in the correct operating procedures by FP McCann.

DAILY USE

Initial procedure on delivery and every morning:

1. Position mortar container under discharge channel.
2. Connect control panel, power leads, and then water pipes.
3. Switch on mixer briefly to check direction of motor.
4. Switch on mixer. NB. Always run mixer with water first before opening butterfly valve.
5. Open butterfly valve on the silo.
6. Adjust water using the water flow control valve, as required.

DAILY CLEANING

At the end of each day, during long interruptions in mixing and before collecting an empty silo, the following shut down and cleaning process must be adhered to:

1. Close butterfly valve on the silo.
2. Remove all remaining material in the mixer until the water runs clear from the mixer. (This should take approximately five minutes)
3. Wash mixer cover, remove it, if necessary, to eliminate hardened build-up.
4. Disconnect water pipes, then remove the control panel and store it in a warm, dry, secure location.

WEEKLY CLEANING

1. Carry out the daily cleaning process.
2. Remove the mixing section and screw.
3. Clean thoroughly.
4. Reassemble.

HOT WEATHER

During hot weather, if the mixer is stopped for more than 1 hour, the daily cleaning process must take place.

WINTER WEATHER

Freezing water can seriously damage the control panel and the water fittings. Ensure that the water fittings are always completely drained, when applicable – during long breaks and after the mixer.

APPROXIMATE SPREAD RATES

Building Mortar	
1 tonne of building mortar when mixed will lay (10mm joint):	
Approx 1300no.	Standard bricks
Approx 650no.	100mm standard block on edge
Approx 350no.	100mm standard block on flat

Plastering Mortar	
1 tonne of plastering mortar when mixed will cover:	
10mm thick	69m ² approx
12mm thick	55m ² approx
15mm thick	34m ² approx
24mm thick	27m ² approx

SILO LOCATION

The following must be considered:

- Ensure silos are not placed in areas accessible to the general public.
- Ensure silos are not placed where there are overhead wires or other obstructions to the placing, removal or filling of the silo.
- Ensure a minimum height clearance of 7 metres is achieved.
- Ensure silos have adequate access to permit filling by road tanker
- Ensure silos are placed away from boundary fencing, where possible, and consideration is given to necessary precautions to control and contain dust as a result of spillages, abnormal emissions or mechanical failures.
- Ensure space is left beside the silo for a second silo, if applicable.
- The customer is solely responsible for safety and access during delivery, collection and filling of the silo.

POWER & WATER REQUIREMENTS

SITE SURVEY

Power Requirements	Water Requirements
3 phase 400v 13A or Single phase 230v 23A	Standard ¾" tap with minimum 2 bar water pressure

*Confirm exact power and water requirements with sales representative before delivery

FP McCann personnel should complete a site survey prior to silo delivery. If site requirements are not met, FP McCann will be unable to provide the silo to the customer.

SILO BASE

Silo site locations must have suitable foundations in place and meet the working space criteria, prior to silo delivery. The silo must not be raised or blocked in, unless previously agreed in writing with FP McCann.

It is the customer's responsibility to ensure that construction meets the following:

- Minimum 3m x 3m base.
- Minimum compressive strength 35 Newton reinforced concrete -150mm thick, to support at least 42 tonne weight
- Flat and level to ensure even bearing of silo base.



DRY SILO MORTAR



DIRECTIONS FOR USE:

HEALTH & SAFETY

Avoid contact with skin. Mortar is an irritant that could potentially cause contact dermatitis or serious burns. Suitable protective clothing and eye protection should be worn. If contact with the skin occurs, immediately wash the affected area with soap and water. If contact with the eyes occurs, immediately wash the eyes with plenty of clean water. If the mixture is accidentally swallowed, thoroughly wash mouth out with clean water, followed by drinking plenty of water to help flush out any remaining particles.

MIXING

Prior to application, this easy-to-use general purpose mortar only requires water to be added to the mix. An appropriate mechanical mixing station should be used in combination with a steady pressure/flow of water to achieve the desired consistency. Provided that the mixed mortar is stored in a covered non-porous container, it will remain usable for up to 4 hours. Extra water should not be added passed its working life, nor should the mortar be reworked. Excessive water will weaken the mix, adversely affect its strength and delay setting times. All required plasticisers are already incorporated into the mix. Further admixtures, cement or lime should not be added to the mix.

APPLICATION

All work should be carried out using industry best practices, national standards and the guidance of the Mortar Industry Association. As a general rule of thumb, mortar joints should be trowelled to around 10mm thickness. In the case of high air temperatures and/or high absorbency masonry units, rapid moisture loss from the mortar should be prevented by pre-wetting the masonry units.

Since extreme summer and winter weather can affect the integrity and appearance of mortar, suitable protection should be used on the newly erected masonry. For example, polythene sheeting or Hessian should be used to protect the mortar from the effects of frost and rain, and to prevent rapid drying in excessively dry or windy conditions. Building in cold conditions or with wet blocks may slow down the mortar setting process. Building work should be checked to ensure it has set and is suitable to receive further courses.

QUALITY

This dry silo mortar is manufactured in a factory controlled environment under an integrated management system and is third party certified to BS EN ISO 9001 and BS EN ISO 14001 using fine aggregates conforming to the requirements of BS EN 13139, cements conforming to BS EN 197-1 and admixtures to BS EN 934-3.

RESTRICTIONS

Cold weather will adversely affect the setting of mortar, which will proceed more slowly. Therefore, it is not recommended to continue with the construction of masonry whilst the temperature is below 3°C. Frozen materials should never be used. In order to prevent damage, masonry and site temperatures should be between 5°C and 35°C during application until the mortar has set. Efflorescence and lime bloom can occur naturally on all cementitious material, especially during cold and damp conditions. Good site practice will minimise their occurrence. FP McCann will accept no responsibility for the occurrence of efflorescence or limebloom.



For further information on our dry silo solutions, contact our sales team at Knockloughrim on **028 7964 2558** or Email sales@fpmccann.co.uk

DRY SILO MORTAR