Functional Mortar M3/M5

Factory-produced dry mortar

Product description
Marlon Functional Mortar M3/M5 is a factory-produced dry mortar product that requires only the addition of water. The product is made of Portland cement, lime filler, additives and oven-dried and sorted silica sand with a controlled grain curve. Thanks to its composition, Marlon Functional Mortar M3/M5 offers optimal workability and surface adhesion. The mortar also requires a far shorter mixing time than traditional mortars, making it suitable for use in an automatic horizontal mixer.

Benefits
- Outdoor and indoor masonry projects
- Short mixing time, can be used in automatic horizontal mixers
- Just add water

Applications
Marlon Functional Mortar M3/M5 can be used both indoors and outdoors as brickwork and joint mortar for lime sand bricks, tiles and clinker block.

Mixing
Marlon Functional Mortar is mixed in an automatic horizontal blender or a suitable agitator mixer. Mixing time in an agitator mixer should be 5–7 minutes. Note that longer mixing times can negatively affect the mortar's properties. For small projects, mixing can take place manually in a bucket/tub with a whisk connected to a drill. When mixing with a drill, first pour water into the bucket and then add the powder while mixing. Mix until you achieve a workable and plastic consistency.

Use
For brickwork, joint and plastering, use traditional steel masonry tools. Lay the bricks with filled joints as clean as possible to avoid acid washing. Press the joints while the mortar is still plastic. In winter conditions, mixing water of up to +60°C can be added. Plastering mortar can be applied to the surface by casting or pulling the mortar on the surface. For joint work, the scraped joint must be clean and free of mortar remnants. The joint work itself is done using a joint filler hand tool 1 to 2 mm smaller than the joint. Press the joint mortar firmly into the joints. Note that some bricks do not tolerate hydrochloric acid. Marlon recommends contacting the tile supplier before beginning the work if in doubt.

Aftercare
The low water content of the mortar means you do not have to protect the wall's surface after the bricklaying is complete. However, you do still have to protect the wall's surface from the impact of rain splatter, frost and overly fast drying. The crown should always be covered and, if needed, insulated on completion of the work.

Limitations
Never add agents that lower the freezing point. If the mixing time is significantly prolonged, it may negatively impact the mortar's usage and strength properties. Do not mix in binding agents, aggregates, additives or water after emptying the mixture from the mixer. Protect the surface of the wall against rain splatter. Non-cured mortar does not tolerate frost.

Cleaning
Clean equipment, machinery and tools with water immediately after use.

Control
Marlon Functional Mortar M3/M5 is subjected to in-house control in accordance with Marlon's quality assurance system. Subsequent measuring and mixing at the site of application is not covered by the quality system. Marlon Functional Mortar M3/M5 is listed/registered in the database for building products that can be/are used in Nordic Swan Ecolabel construction.

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A solid solution

Product information

Manufacturer
Marlon Tørmørtel A/S
Virkelyst 20
DK-8740 Brædstrup

Material type
Type G functional mortar

Aggregate material
Oven-dried and sorted silica sand 0-4 mm

Additives
Air-infused and consistency-improving additives

Environment
M3: Moderate
M5: Aggressive

Added water
13-14% of the dry powder weight (3.2-3.5 L per 25 kg)

Application temperature
From +5°C to +30°C

Working life
Approx. 60 min at +20°C

Consumption
Bricklaying: Approx. 1 kg per brick
Joint filling: 8-10 kg/m^2 for joint depths of 10-15 mm
Plastering: Approx. 20 kg/m^2 at layer thicknesses of 1 cm
Casting: Approx. 8 kg/m^2

Yield
Approx. 15 L per 25 kg

Shelflife
The shelflife is min. 12 mos. In dry andsuitable conditions in unopened packaging

Packaging
25 kg plastic sack, big bags and loose.

Properties	M3	M5	Method
Compressive strength, 28 days	≥ 3 MPa	≥ 5 MPa	EN 1015-11
Bending tensile strength, 28 days	> 1,5 MPa	> 2 MPa	EN 1015-11
Density	1700 kg/m^3	1750 kg/m^3	EN 1015-10
Chromate content	< 2 mg/kg cement	< 2 mg/kg cement	
Chloride content	≤ 0,003 weight %	≤ 0,003 weight %	EN 1015-17

Information

Item no. M3	1000610
Item no. M5	1000630
Pr no.	2377785
DB no. M3	1617140
DB no. M5	1617138
Version	07.18 rep. 04.14

CE

Marlon Tørmørtel A/S
Virkelyst 20
DK-8740 Brædstrup
Year 10
M3: DoP 1000610
M5: DoP 1000630

EN 998-1
171-03
Plastering mortar type GP: Plastering mortar for outdoor use

Flammability	Class A1
Water absorption	NPD
Steam diffusion coefficient	NPD
Thermal conductivity	NPD

CE

Marlon Tørmørtel A/S
Virkelyst 20
DK-8740 Brædstrup
Year 10
M5: DoP 1000630

EN 998-2
1073
Functional mortar type G: Masonry mortar for outdoor use in elements that are subject to static requirements

Compressive strength class	M5
Flammability	Class A1
Water absorption	NPD
Steam diffusion coefficient	NPD
Thermal conductivity	NPD

For M3 see DoP

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