Joint Mortar Winter

Pumpable joint and grouting winter mortar

Product description
Marlon Joint Mortar, Winter is a pre-mixed expanding dry mortar product that is simply mixed with water at the work site. Marlon Joint Mortar comes in the variants 35 MPa, 45 MPa and 60 MPa. With its plastic consistency, Marlon Joint Mortar, Winter is pumpable and easily mixed in an automatic mixing pump. Marlon Joint Mortar, Winter is manufactured from Portland cement, with adhesion-improving, expanding, freezing point depressants and plasticizing additives. Marlon Joint Mortar, Winter contains oven-dried silica sand with a controlled grain curve. The aggregate satisfies the requirements of environmental class E (see DS/EN 206 DK NA:2020). Marlon Joint Mortar, Winter is water and frost-resistant in its set state.

Benefits
- High-strength pumpable expanding mortar
- Well-suited for element joints from 3 mm up to 60 mm
- Added expanding and freezing point lowering additives
- Can be used in temperturere down to -5°C
- Contains expanding and adhesion-improving additives
- Just add water

Applications
Marlon Joint Mortar, winter is used for joining and grouting prefabricated concrete elements with both horizontal and vertical joints. For joining corners, concrete element floors and similar tasks. Marlon Join Motar, Winter can be used between -5°C and +5°C.

Preparation
To ensure the greatest possible adhesion for old concrete, the surface should be cleaned of any cement slurry, dust, oil, grease and other loose impurities. The cleaned surface must be free of is and frost doing the application.

Mixing
Pour Marlon Joint Mortar, Winter in a suitable mixing pump, and add approx. 3.5-3.9 l of water per 25 kg of dry powder. The mixing time is min. 5 minutes. Do not mix more mortar than can be used within about 20 min. Marlon Element Joint Mortar can also be mixed in a suitable agitator mixer. Manual mixing can be done with a low-speed drill connected to a two-bladed mixer or by hand-mixing. First pour the water in the tub, then add the dry product and mix thoroughly to achieve a good working consistency.

Pointing of concrete elements
The pre-mixed mortar is pumped directly into the element joint with a suitable pump connection piece in joint thicknesses from 3 mm up to 60 mm wide in the horizontal and/ or vertical joints. The mortar is then pressed into the joint, and the final finish made with the proper tools. Preparation time is approx. 20-25 min. at +5°C. Lower temperatures prolong, and higher temperatures shorten the opening and hardening times.

Aftercare
Newly grouted joints must be protected from rapid drying due to draught, high temperatures, sun rays, etc. In hot and dry periods, the joint should be watered down. Castings underwater are naturally protected from drying.

Limitations
Marlon Joint Mortar, Winter should not be used at temperatures under -5°C.The product does not tolerate frost during the curing and cementation period. Do not mix other additives.

Cleaning
Clean equipment, machinery and tools with water immediately after use. Hardened Joint Mortar, Winter can only be removed mechanically.

Inspection
Marlon Joint Mortar, Winter is subject to internal inspection according to Marlon's quality assurance system. Subsequent measuring and mixing at the site of application is not included in quality control.

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Product information

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

Material type
Cement-based, expanding and pumpable joint mortar.

Added water
35 MPa 14-15% of the dry powder weight.
45 MPa 14-15% of the dry powder weight.
60 MPa 15-16% of the dry powder weight.

Environmental class
Joint Mortar 45/60 Winter Extra aggressive

Time open
Approx. 20-25 minutes, depending on the temperature.

Pouring temperature
-5°C til ca. +5°C.

Layer thickness
Guideline, approx. 3-60 mm.

Yield
Approx. 13 l per 25 kg.

Filler material
Oven-dried and sorted silica sand, cl. E.

Cement type
Portland cement, CEM I 52.5 N (LA).

Additives
Plasticiser, expanding and stabilising additives.

Packaging
25 kg plastic sacks and big bags.

Storage
12 months in dry and suited conditions in unopened original packaging.

Technical values	**35 MPa**	**45 MPa**	**60 MPa**	**Method**
Typical internal values cf. EN 196-1 / EN 1015-11 (40 x 40/160 mm prisms)				
Compressive strength, 1 day	> 10 MPa	> 10 MPa	> 14 MPa	DS/EN 1015-11
Compressive strength, 7 days	> 24 MPa	> 24 MPa	> 40 MPa	DS/EN 1015-11
Compressive strength, 28 days	> 45 MPa	> 45 MPa	> 50 MPa	DS/EN 1015-11
Bending tensile strength, 28 days	> 5.0 MPa	> 7.0 MPa	> 8 MPa	DS/EN 1015-11
Expansion of fresh mortar	0.2-0.4 %			
Air content	5%			DS 423.15
Density (wet)	Approx. 2200 kg/m^3			DS/EN 1015-6
Chromate content	< 2 mg/kg cement			
Chloride content	0.01 %			DS/EN 1015-17

Information

Item no. 35 MPa	10235
Item no. 45 MPa	10245
Item. 60 MPa	10255
Pr no.	2172448
Version	07.14 erst. 11.12

Compressive strength cf. Bulletin no.5

Performance acc. to DS/EN 206 DK NA:2020 & EN 206-1 Measured on 150 x 300 mm cylinders:

Joint Mortar 35 Winter	
Compression strength, 28 days	f_{ck} > 40 MPa
Correction building site uncertainty	f_{ck} > 35 MPa
Joint Mortar 45 Winter	
Compression strength, 28 days	f_{ck} > 45 MPa
Correction building site uncertainty	f_{ck} > 40 MPa
Joint Mortar 60 Winter	
Compression strength, 28 days	f_{ck} > 50 MPa
Correction building site uncertainty	f_{ck} > 47 MPa

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