

Grout EKF 604LM Winter

Expanding liquid mortar for grouting jobs



Product description

Marlon Grout EKF 604LM, Winter is a factory-produced expanding liquid mortar made of Portland cement, mineral adhesives, additives, latex polymer and oven-dried silica sand with a controlled grain curve. The product's high content of latex polymer gives the mortar particularly good flow and adhesive properties. Marlon Grout EKF 604LM, Winter requires only the addition of water and, when mixed, is a very fluid pumpable mortar. For large projects, the mortar can be applied with the help of a suitable screw or piston pump. The product satisfies the material requirements for the extra aggressive environmental class E (see DS/EN 206 DK NA:2020).

Benefits

- Pumpable expanding liquid mortar
- Shrinkage-compensated, latex-modified
- High strength
- Can be used down to -5°C
- Just add water

Applications

Marlon Grout EKF 604LM, Winter is used, e.g. for grouting of machine foundations and embedment work. Marlon Grout EKF 604LM, Winter is also well suited for jointing underneath and between prefabricated concrete elements, for pouring of corrugated pipes in concrete element constructions or for projects that are difficult to access with traditional methods.

Pre-treatment

To ensure the best possible adhesion for existing concrete, the surface must be cleaned of any cement slurry, oil, grease or other loose impurities through, e.g. chipping, sandblasting or high-pressure cleaning, and reinforcing iron must be cleaned of rust and chlorides. The cleaned surface must be watered, to produce a uniform, dull and slightly absorbent surface. Metal surfaces must be cleaned of any grease, rust etc.

Mixing

Marlon Grout EKF 604LM, winter is mixed with clean water (approx. 14 weight percentage). The dry powder and approx. 80% of the water for mixing is poured into a suitable agitator mixer. During effective mixing, the remaining water is added until you achieve a very fluid, lump-free mortar. Manual mixing can be done in a tub/bucket using a drill with a two-bladed propeller mixer. When mixing with a drill, first pour the water into the bucket, and then add the powder while mixing. Mix until you achieve a very liquid consistency. The mixing time should be at least 3 min. On mixing and application, check that the compound does not separate.

Application

Marlon Grout EKF 604LM, Winter can generally be applied in thicknesses from approx. 10 mm up to 100 mm. For greater layer thicknesses, an aggregate of larger stone fractions of 20-25% can be added. Depending on the nature of the surface, large variations in the surface can result in contraction cracks. To achieve optimal benefit from the expansion, blend only the amount of mortar that can be used within approx. 20 min at +20°C. Higher temperatures will shorten, and higher temperatures will lengthen both the processing and hardening times.

Aftercare

The newly poured mortar surface must not be exposed to loads and must be protected as quickly as possible after pouring against rapid drying from draughts, high room temperature, sun rays, etc. Use of sealed plastic or a suitable curing membrane is recommended.

Limitations

Marlon Grout EKF 604LM, Winter should not be used at temperatures under -5°C or over +5°C.

Cleaning

Clean tools with water immediately after use. Hardened Grout EKF 604LM, Winter can only be removed mechanically.

Inspection

Marlon Grout EKF 604LM, 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.

Product information

Manufacturer

Marlon Tørmørtel A/S
Virkelyst 20
DK-8740 Brædstrup

Material type

Cement-based, expanding concrete.

Environmental class

Extra aggressive.

Added water

14% of the dry powder weight. (3.5 l per 25 kg)
 $v/c < 0.40$.

Yield

Approx. 13 l per 25 kg.

Opening time

Approx. 45 min., depending on temperature.

Layer thickness

Approx. 10-100 mm. Guideline.

Consumption

Approx. 2 kg dry powder product per m^2 per mm layer thickness.

Adhesive agent

Portland cement. CEM I 52.5 N (LA).

Filler material

Oven-dried and sorted silica sand, d. E.

Additives

Plasticiser, expanding and stabilising additives.

Packaging

25 kg plastic sacks or big bags.

Storage

The storage life is min. 12 months in dry and suited conditions in unopened packaging.

Technical data

	-5°C	+20°C*	Method
Compressive strength, 1 day		20 MPa	DS/EN 12190
Compressive strength, 7 days	40 MPa	40 MPa	DS/EN 12190
Compressive strength, 28 days	50 MPa	60 MPa	DS/EN 12190
After extra 21 days at +20 °C	70 MPa	75 MPa	DS/EN 12190
Bending tensile strength, 7 days		6 MPa	DS/EN 12190
Bending tensile strength, 28 days		8 MPa	DS/EN 12190
Air content	Approx. 3%		DS/EN 1015-7
Consistency	> 250 mm		DS/EN 1015-3
Expansion	0.4-0.6%		
pH value	Approx. 12.5 for fresh mortar		
Chromate content	< 2 mg/kg cement		

**Our CE-mark according to EN 1504-3, requires the compressive strength measured according to EN 12190, in this standard the final strength (28 days) is measured at 20°C, and that is the reason why this temperature appears on our technical data sheet, also in concordance with our DoP.*

Information

Item no.	10517
Pr no.	2377734
Version	07.18 replaces 07.14



Marlon Tørmørtel A/S
Virkelyst 20
8740 Brædstrup
Year 12
DoP 1000517

EN 1504-3

1073-CPR-171-01
Concrete repair product for construction repairs. CC mortar, based on hydraulic cement.

Compressive strength	> 45 MPa class R4
Chloride content	$\leq 0.05\%$
Adhesion	≥ 2.0 MPa
Frost/thaw	≥ 2.0 MPa
Carbonatization	Passed
Elastic modulus	≥ 20 GPa
Thermal compatibility	Del 1 ≥ 2.0 MPa
Capillary absorption	$\leq 0.5 \text{ kg} \times \text{m}^{-2} \times \text{h}^{-5}$
Hazardous substances	In accordance with section 5.4
Fire-resistance	Class A1