

PCI Novoment M3 Plus

Fast setting screed mortar – ready blended for fast track cementitious screeds

Fields of application

- For indoor and outdoor use, also suitable for direct use.
- For areas which are exposed to permanent wetness.
- For fast track bonded screeds and screeds installed on an isolating or insulating layer.
- Suitable for heated screeds.
- As repair mortar for concrete floors and cementitious screeds.
- For layer thicknesses from 20 to 80 mm.



Packaging

25kg PE lined heavy duty paper bag

Shelf life

Min. 12 months when stored in dry conditions, no permanent storage over.

Features and benefits

- Can be tiled after approx. 3 days, already walkable after approx. 1 day.
- Ready-to-mix mortar, no on-site mixing with sand required.
- Long working time, can be worked with and smoothed for almost 1 hour despite of short curing time.
- Suitable for application by pump, even at higher temperatures.
- Temperature resistant from -30°C to +80°C, therefore suitable for balconies, terraces, garages, industrial floor coverings cleaned with superheated steam.
- Insensitive to moisture, therefore suitable for areas exposed to permanent wetness.
- Limited bending (suitability test acc. to 6.2 DIN 18560-2), therefore reduction of layer thickness possible to 30 mm for screeds on insulation layer acc. to chart 1 (perpendicular load capacity ≤ 2 kN/m²) or chart 2 (perpendicular load capacity, area load ≤ 3 kN/m²), with heated screeds the pipes must be covered by a layer thickness of 30 mm.



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Technical data –

Material

Material base	special cement with admixtures and aggregates
Maximum grade	6mm
Components	1 part
Bulk density	approx. 1.9g/cm ³
Consistency	Powder
Colour	Grey
Behaviour in Fire	A1 _{fl}
Strength to DIN EN 13892-2	
Compressive strength after 28 days	≥ 30 N/mm ²
Bending tensile strength after 28 days	≥ 5 N/mm ²
Labelling to	
- Regulation for hazardous goods on roads	non hazardous
- Regulation for hazardous substances	irritating, contains cement
For further information: see Health and Safety.	

Application

Consumption	approx. 20 kg/m ² and cm layer thickness
Quantity of gauging water	approx. 2.1 litres of water + 25 kg of PCI Novoment M3 plus
Layer thickness	
- minimum	approx. 20 mm for bonded screeds; approx. 30 mm for screeds on isolating or insulating layer
- maximum	approx. 80 mm
- for heated screeds	min. 30 mm to cover pipes
Working temperature	+5°C to +25°C
Mixing technique	blade-type concrete mixer
Conveyor technique	pneumatic
Consistency of mortar	stiff-plastic
Working time*	approx. 60 minutes
Curing time*	approx. 1 day
- walkable after	approx. 3 days
- can be tiled after	
- can be covered with vapour-tight coverings after	approx. 7 days at max. 3% residual moisture content (measured with CM meter) The CM measuring is to be carried out according to the requirements for cement screeds in the manual issued by the CM meter producer!
Temperature resistance	-30°C to +80°C
Frost resistance	yes
Resistance to permanent wetness	yes

* Times are achieved when the temperatures of mortar, ambient air and substrate are approx. +23°C over the entire period and the relative humidity does not exceed 50%. See also "General information on the application of rapid setting cement screeds".

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Preparation of substrate for bonded screeds according to DIN 18 560

The substrate must be clean, sound, free from grease, old paint and other residues. Remove heavy contamination mechanically, residues of oil and wax with PCI Entöler. Smoothed surfaces with a cement slurry on top should be removed by e.g. shot blasting.

Prewet the prepared substrate at an early stage, keep damp, apply the bonding agent PCI Repahaft and the screed mortar PCI Novoment M3 plus wet on wet.

Application procedure

The recommendations DIN 18 560 and DIN 18 353 should be followed during the application of PCI Novoment M3 plus.

1. Mixing

- 1.1 Mix larger quantities in a blade-type concrete mixer! Put PCI Novoment M3 plus in a blade-type concrete mixer and mix with water for approx. 1 minute while mixer is running until a stiff-plastic consistency is achieved. The amount of water required per 25 kg bag of PCI Novoment M3 plus is about 2.1 litres.
- 1.2 Single bags of PCI Novoment M3 plus can also be mixed in a suitable vessel (e.g. hobbock) with a basket stirrer attached to an electric drill. Put adequate amount of gauging water in the vessel, add PCI Novoment M3 plus and mix until a stiff-plastic consistency is achieved.

2. Application

Spread the mortar with a shovel, trowel or surface scraper, compact, scrape off with a levelling board, rub down with a wooden board and smooth if necessary.

Protect newly applied screed from too rapid dehydration.

General information on the production of rapid setting cement screeds

The mix must be of a stiff-plastic consistency! If the consistency is too soft and/or contains too much water, the screed does not achieve the appropriate strength resulting in shrinkage cracks and bulges. The equilibrium moisture will not be reached until later.

The strength and low residual moisture level important for laying subsequent coverings are dependent on the following factors:

1. Compaction of the fresh mortar

Insufficient compaction of pre-mixed mortars for screeds results in low strength of screed.

2. Temperature and humidity

Curing and drying times may considerably increase at low application and substrate temperatures or high humidity (compared with the times at +20°C). The relative humidity should not exceed 70% during the curing process. In principle, the residual moisture should be checked prior to the application with vapour-tight floor coverings.

3. Layer thicknesses

The required thickness of the screed must be in accordance with DIN 18 560.

Information on the application as heated screed

- Application details according to DIN 18 560-2 and DIN EN 1264-4. PCI Novoment M3 plus screeds can already be heated after 3 days. Initial preheating takes place at a temperature of +25°C to be maintained for 3 days. The maximum flow temperature is set and maintained for another 4 days. Then the heating system is switched off.

Ensure adequate air supply and ventilation during the heating and cooling phase. Avoid draughts!

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Do not allow the room temperature to drop below +15°C and the temperature of the screed surface to fall below +18°C. The heating contractor must draw up a report on the initial heating operation and subsequent commissioning. The report must be handed over to those concerned and must contain the following information:

1. Data on the pre-heating operation with respective flow temperatures.
2. Maximum flow temperature attained.
3. Operating condition and outside temperature at the time of handing over.
4. Date of commissioning.

Screeds which are heated up this way can be covered with a wide variety of top coverings.

Please Note

- Do not apply PCI Novoment M3 plus screeds at substrate temperatures below +5°C and above +25°C.
 - The general guidelines for cement screeds must be observed.
 - The rapid curing properties of PCI Novoment M3 plus must be taken into consideration.
 - Use only whole bags of PCI Novoment M3 plus.
 - PCI Novoment M3 plus must not be mixed with cement, rapid bonding agents, ready-to-mix screeds, dry mortars, as well as fibres, admixtures or additives and/or blended with aggregate mixes.
 - Apply PCI Novoment M3 plus within approx. 60 minutes (at approx. +23°C) after mixing. Higher temperatures reduce, lower temperatures increase the time given.
- Never add water or fresh PCI Novoment M3 plus to reconstitute a mortar mix which has already begun to set.
 - In outdoor areas where early exposure to rain is expected or under extremely windy conditions it is recommended to cover the installation with construction foil until walkable.
 - Clean tools and mixing vessels with water immediately after use, once the product has cured cleaning with water is not possible any more.

Health and Safety

PCI Novoment M3 plus contains cement. Contact with moisture or gauging water sets off an alkaline reaction which may cause skin irritation and/or caustic burns to mucous membranes (e.g. the eyes). Risk of serious damage to eyes, therefore avoid contact with eyes and prolonged contact with skin. In case of contact with eyes immediately rinse with plenty of water and seek prompt medical attention. In case of contact with skin change contaminated clothing at once and immediately wash skin with plenty of soap and water. Wear suitable protective gloves (e.g. cotton gloves soaked in nitrile) and safety goggles/face protection. If ingested seek prompt medical attention and show packaging or this product data sheet. Keep out of reach of children.

Low in chromates.

For further information refer to the PCI Material Safety Data Sheet.

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