



Quality Construction Solutions

EM 4193

Calcium Sulphate Thin Bed Screed

Product description

EM 4193 is a polymer modified self-levelling thin bed floor screed based on a calcium sulphate binder.

EM 4193 is supplied as a pre-blended dry mortar supplied in 25kg bags.

Meets all requirements of EN 13813 and DIN 18560 for CA-C30-F6.

Field of Application

EM 4193 is designed for use as renovating thin bed levelling screed for the encapsulation of under floor heating systems installed during a renovation or where an existing floor level must be built up during renovation projects.

Suitable for residential and commercial applications, EM 4193 must be covered by a suitable floor covering.

EM 4193 can be installed as a bonded screed to the existing substrate or as a floating screed over insulation and/or separating layers from the existing floor.

Properties

- Pumpable
- Highly Flowable
- Good general durability under floor coverings
- Low Shrinkage
- Economical solution for large, heated floor areas
- Can be heated after 6 hours
- Must have a floor covering overtop.

Substrate

Bonded Installation

The existing substrate must have a surface tensile strength of $> 1.0 \text{ N/mm}^2$.

Prepare the substrate by cleaning the floor to remove any contaminants and debris. Dependant on the condition of the substrate concrete grinding of the surface may be required. Level large uneven patches before commencing work using maxit floor 4193, allow to dry. Any redundant piping and fixtures are to be sealed and levelled first using EM 4193.

Prime the substrate surface with maxit floor 4716 or 4710 N dependant on substrate conditions.

Install perimeter strips around edges of area and any penetrations. Perimeter strips must be continuous from base of the substrate and extend to the top edge of the finished floor screed.

Un-bonded installations

Install intermediate barrier(s) as per manufacturers' specifications prior to EM 4193 installation.

Install perimeter strips around edges of area and any penetrations. Perimeter strips must be continuous from base of the substrate and extend to the top edge of the finished floor screed.

Setting out

To achieve the desired screed level, a laser level should be used to mark a line around the perimeter of the room prior to installation. During installation of the EM 4193 screed measure from the marked line down onto the surface of the screed to identify the correct finished level.

Tripods should be installed periodically within the area to identify the correct finished level.

Technical Data	
Coverage Rate/Thickness	18kg / m ² per cm of thickness
Drying Time	
Foot Traffic	After approx. 6 hours
Light Traffic	After approx. 24 hours
Heavy Traffic	After approx. 24 hours
Minimum nominal thickness	
Un-bonded	25mm over insulation board (un-bonded installation)
Bonded	10mm over existing Concrete Floor
Residual Moisture content before covering	
Un Heated Floors	$\leq 0.5 \text{ CM}\%$
Heated Floors	$\leq 0.3 \text{ CM}\%$
Recommended water content	approx. 19%
Yield	550L / 1,000kd dry mortar
Elasticity modulus	Approx. 18000 N/mm ²
Poured Density	1.7 kg/dm ³ DIN EN 1097-3
Dry Density	approx. 1.91 kg/cm ³
Fresh Mortar Density	approx. 2.27 kg/cm ³
28 Day MPa	$\geq 30 \text{ MPa}$ EN13892-2
28 Day Flexural Strength	$\geq 6 \text{ MPa}$ EN13892-2
28 Day Shrinkage	$< 0.2 \text{ mm/m}$
Thermal Conductivity	1.2 – 1.8 W/mk
Fire rating	A1 EN 13813
Thermal expansion coefficient	0.011 mm/mk
Application temperature	
Ambient air	+10°C to +25°C
Substrate	+10°C to +25°C
Working time	Up to 30min @ 20°C
Flow rate	22cm – 25cm without seperation
Inside application only	



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Mixing and pumping procedure

Bagged material can be mixed with all standard plastering machines and mixing pumps.
The ideal flow range of the mixed screed should be 22-25 cm.

The m-tec duo-mix 2000 is especially suitable for mixing and pumping self-levelling screeds. The hoses should be lubricated with a slurry before pumping. The slurry must be fully recovered at the end and must not be mixed with the screed.

Ensure proper substrate preparation has taken place before pumping.

Begin pumping the EM 4193 screed at the far end of the area working back towards the exit point. Focus on pumping conjoining areas of around 8-10m² at a time. This will allow sufficient build-up of fresh product ensuring a satisfactory finished level can be achieved.
Continually check the finished level and if required top-up.

As soon as the desired level of screed is reached, it should be dapped immediately to obtain the best surface finish. The first pass with the dappling bar should be made with a deep, tamping motion. During the second pass, at right angles to the first, the bar should skim the surface. This creates a wave-like ripple across the surface, removing any air bubbles and levelling the screed.

The screed thickness must be a minimum of comply with the specification of DIN 18560 for calcium-sulphate flowing screeds and the statements made in this technical Data Sheet.
Structural movement joints in the substrate must be observed.

Subsequent Treatment

Keep all doors and windows closed for a minimum period of 24hrs to help to protect from uneven drying during this time that can be caused by direct sunlight or draughts.

Tool Cleaning

Clean all tools with water periodically during installation of EM 4193.

Storage

Store bags on pallets in a dry place for a maximum of 6 months.

Packaging

Available in 25 kg bags
40 bags/pallet
1000 kg/bulk bags

Environmental notices

GISCODE: CP1

Product hardens when water is added and can then be disposed of as normal construction debris.

Safety Information

This product is not subject to specific labelling requirements. This product produces a strong alkaline reaction with water. Low in chromate content. Observe current SDS, available at:

www.ezymix.co.nz

Legal Notices

The information provided in this document is based on our technical knowledge and experience at the present time. It must be regarded as a general guideline only. Owing to the large number of potential influences, it does not relieve anyone using or processing our products from the responsibility of carrying out their own tests and experiments nor does it imply any legally binding assurance of certain properties or that our products are fit for a specific purpose. Responsibility for complying with any property rights, applicable laws or other requirements lies solely with the user.

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