



Quality Construction Solutions

TECHNICAL DATA SHEET

EM490 FLOOR SCREED

General Product Description

EZYMIX EM490 is a self-levelling, fast setting, thick bed floor screed primarily used during under-floor heating installation.



Product Info and Limitations

EM490 is designed for use as a levelling screed for the encapsulation of under floor heating systems or where an existing floor level must be built up during renovation projects.

Suitable for residential and commercial applications, EM490 **must** be covered by a suitable floor covering.

EM490 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.

- Low shrinkage
- Low surface tension
- Eco-friendly
- Suitable for underfloor heating
- Large area installation possible
- Virtually self-levelling
- Short installation and drying time

Technical Info

Yield	550 litres per 1000kg dry material
Coverage	18 kg/m ² per cm thickness
Water Demand	approx. 15%
Drying time - foot traffic	after 24 hours
Drying time - Light Traffic	after 3 days
Drying time - Heavy traffic	after 28 days
min. thickness - over solid substrate	30mm
min. thickness - over insulation	51mm
max. thickness - single application	80mm
Compressive Strength - 28 days	≥ 20 mPa

Flexural Strength - 28 days	≥ 5 mPa
Shrinkage - 28 days	< 0.2mm / m
Poured Density	1700 kg/m ³
Elasticity Modulus	approx. 18000 N/mm ²
Thermal conductivity	1.2 – 1.8 W/mK
Thermal expansion coefficient	0.011 mm/mK
Fire rating	A1 EN 13813
Application Temperature	Ambient air: +5°C to +30°C Substrate: +5°C to +25°C
Working time	approx. 35 minutes
Flow rate	15 - 17cm dia.

Substrate

Bonded Installation

The existing substrate must have a surface tensile strength of > 1.0 N/mm².

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 EM490, allow to dry.

Any redundant piping and fixtures are to be sealed and levelled first using EM490.

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 EM490 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 EM490 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 at central locations.

Mixing and Pumping procedure

The m-tec duo-mix 2000 is especially suitable for mixing and pumping self-levelling screeds. All mortar 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.

The ideal flow range of the mixed screed should be 15-17 cm.

Begin pumping the EM490 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. This creates a wave-like ripple across the surface, removing any air bubbles and levelling the screed.

During the second pass, at right angles to the first, the bar should only just penetrate the surface of the EM490 and performed with a faster action to complete the surface levelling.

Observe minimum and maximum screed thicknesses as stated in this Technical Data Sheet.

Structural movement joints in the substrate must be observed.

Subsequent treatment

Keep all doors and windows closed for min. 24 hours to protect from rapid drying during this time caused by direct sun or draughts.

Additional Information

Clean up

Clean all tools immediately after use with water.

Packaging

Available in 25 kg bags

40 bags/pallet

1000 kg/pallet

Storage

The material must be kept dry and sealed, stored off the floor in a manner where moisture cannot come into contact with the bag or its contents.

This Product has a shelf life of 6 months after date of manufacture if stored as detailed above. Manufactured dates are clearly labelled on each bag.

Product Guarantee

EZYMIX products are manufactured to specification in New Zealand by Nu-Age Plaster Ltd utilising automated weighing and batching equipment in conjunction with Telarc Q Base a strict quality control regime.

EM490 is Guaranteed to be manufactured to consistent specification or replacement material will be supplied.

EZYMIX cannot be held liable for the application of the material outside the specifications stated in this and other associated Technical Literature, for application which does not meet current Trade Practices and any application prior to consultation on use with EZYMIX staff.

Safety Information

Safety Data Sheets (SDS) are available upon request or download from the ezymix website.

Always read the SDS prior to use and always wear Personal Protective Equipment (PPE)