

LAMPOCEM

Ready-to-use shrinkage-free rapid setting and hardening hydraulic binder



WHERE TO USE

Fast fixing of every kind into vertical and horizontal substrates in concrete and masonry.

Some application examples

- Sinking and securing foundation bolts, pipeclips, sanitary-ware, hinges.
- Laying sub-frames in wood and metal.
- Installing boxes and sheathes for electrical systems.
- Sinking and securing wooden plugs.
- Sealing concrete conduits, drains, tanks, etc.
- Stopping small water leaks in underground structures, cellars and lift wells.

TECHNICAL CHARACTERISTICS

Lam pocem is a ready-to-use powder binder composed of high-strength cements and special admixtures in a formula developed in the MAPEI research laboratories.

Lam pocem contains no chlorides.

Mixed with water, **Lam pocem** produces a paste with a plastic-thixotropic consistency which is easy to apply even on vertical surfaces, without any need for formwork.

Lam pocem has a very fast setting time (about 3 minutes at +20°C) and, after curing, has the following property:

- very high mechanical strength after only few hours;
- low shrinkage;
- no loss in performance over a long period of time.

RECOMMENDATIONS

- Do not use **Lam pocem** for restoring deteriorated concrete structures (use **Mapegrout Thixotropic** or **Mapegrout Fast-Set**).
- Do not use **Lam pocem** to anchor machines or bearing structures (use **Mapefill**).
- Do not use **Lam pocem** for levelling, smoothing or repairing floors, walls or steps (use **Nivorapid**).
- Do not apply **Lam pocem** to dry or dirty surfaces.
- Do not mix **Lam pocem** with more water than prescribed and do not add more water to the mix when it has begun to set.
- Do not add lime, cement or gypsum to **Lam pocem**.
- Do not leave bags of **Lam pocem** exposed to sunlight before use.

APPLICATION PROCEDURE

TECHNICAL INFORMATION FOR THE APPLICATION

Composition of the mix by weight:	100 g of Lampocem with 20-21 g of water
Composition of the mix by volume:	4 parts by volume of Lampocem with 1 part of water
Application temperature range:	surrounding and substrate temperature from +5°C to +35°C
Pot life:	approximately 1 minute
Setting time:	approximately 3 minutes
Ready for use:	1-2 hours

Preparing the substrate

The surface must be solid, strong and free from dust and degraded or loose material.

Cavities formed for fixing must be roughened and thoroughly soaked with water.

This operation must be carried out very carefully, especially if the substrate is highly absorbent (mixed masonry, brickwork) and if it is exposed to hot sun.

Preparing the mix

While stirring, pour 1 kg of **Lampocem** into a container holding 200-210 g of water (20-21% of water to 1 kg of **Lampocem**) and mix manually with trowel or float to obtain a smooth mix with no lumps.

Lampocem can be prepared in larger quantities, in which case an electric mixer is recommended.

Given **Lampocem**'s fast setting time, prepare only amounts which can be placed within 1-2 minutes.

For mixing by volume, 4 parts **Lampocem** should be mixed with 1 part water.

The instructions for the preparation of the binder to be used for the creation of concrete samples for laboratory tests are reported in the "Technical Data" table.

Applying the mix

Apply the **Lampocem** mix rapidly with trowel or smooth float.

Securing foundation bolts, hinges, tie-rods, etc.

Completely fill the appropriately prepared cavity with **Lampocem** and then insert the hinge, foundation bolt or tie-rod. Finish off surface with trowel.

Securing sub-frames and window and door frames

Position frame and seal off anchor bolts with **Lampocem**.

Finish off surface with trowel.

Keep frame firmly in position for a few hours.

Stopping small water leaks

After preparing the mix, wait a few minutes before applying it so that the material warms up and begins to cure.

At this point, with gloved hands, force the **Lampocem** into the cavity and keep it pressed down until it has set.

PRECAUTIONS TO BE TAKEN DURING THE PREPARATION AND APPLICATION OF LAMPOCEM

- No special precautions need to be taken when the temperature is approx. +20°C. In warm weather **Lampocem** should not be exposed to sunlight and very cold water should be used in preparing the mix.
- In cold weather water should be approx. +20°C and the material should be stored in heated rooms since the beginning of setting and curing is delayed in cool weather.
- To fill large cavities on vertical surfaces, apply several layers at approx. five minute intervals.
- On very warm or windy days, after applying **Lampocem**, keep surface damp for the first hour of curing to obtain perfect setting.

CONSUMPTION

1.8 kg/dm³ of cavities to be filled.

CLEANING

Before it hardens, **Lampocem** can be cleaned from tools with water.

After setting, residues can be removed by mechanical means.

PACKAGING

25-kg paper bags.
Cartons containing four 5-kg bags in Alupack.
Packages made up of 8 boxes in Alupack of 2 kg each.

STORAGE

12 months if stored in a dry sheltered place in original packaging.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website www.mapei.com.
PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Consistency:	fine powder
Colour:	grey
Dry solids content:	100%

TECHNICAL INFORMATION FOR THE PREPARATION OF THE PRODUCT

Composition of the mix:	100 parts by weight of Lampocem with 21% of water
Preparation of the mix:	Mix with drill for approximately 30 seconds ^(*) <i>(*) binder and water conditioned at low temperature before mixing</i>

CHARACTERISTICS OF THE FRESH MIX (at +20 °C and 50% R.H.)

Colour of mix:	grey
Consistency of mix:	plastic-thixotropic
Density of mix:	2100 kg/m ³

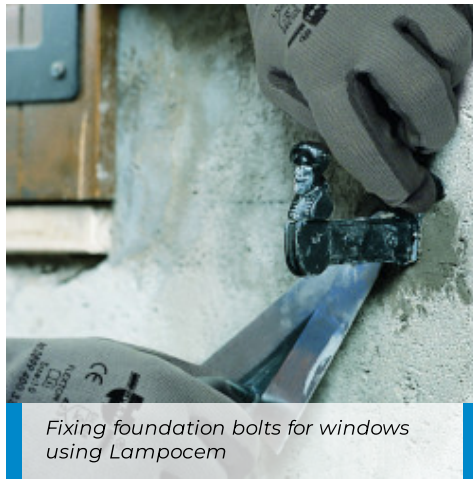
FINAL PERFORMANCE

According to CC curing as defined in the standard

Performance characteristic	Test method	Product performance
Compressive strength:		
- 1 hour		8 MPa
- 24 hours	EN 12190	15 MPa
- 7 days		24 MPa
- 28 days		34 MPa

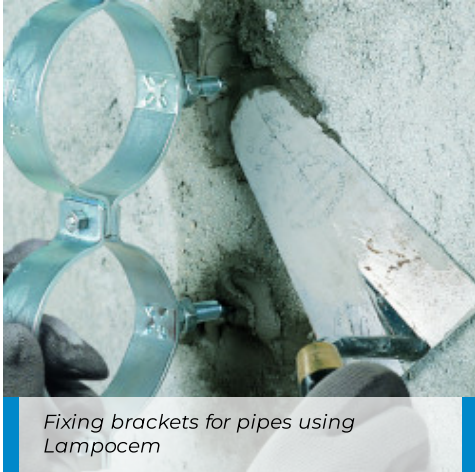
NOTES:

Sample preparation: compacting according to EN 196-1 mod. (60 strokes on a single layer).

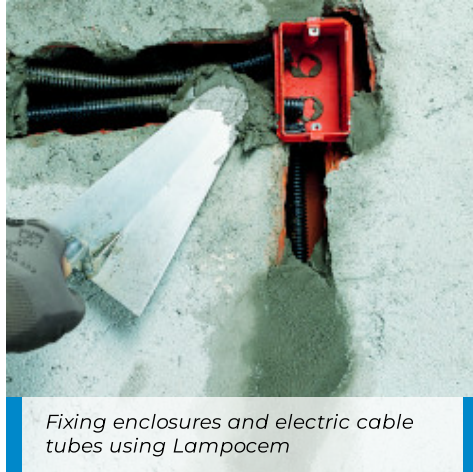


Fixing foundation bolts for windows using Lampocem

Fixing anchor bolts for radiators using Lampocem



Fixing brackets for pipes using Lampocem



Fixing enclosures and electric cable tubes using Lampocem

WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

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